

289

CORRESPONDENCE

Dec, 1960

N. WIENER · MC 22





ПОЧТОВАЯ КАРТОЧКА



Глубокоуважаемый
проф. Винер!

Поздравляю Вас с наступающим Новым годом! Желаю Вам в 1960 г. здоровья, счастья в личной жизни и успехов в работе.

Куда _____

Кому _____

С наилучшими пожеланиями,

Б. Наумов
Б. Наумов

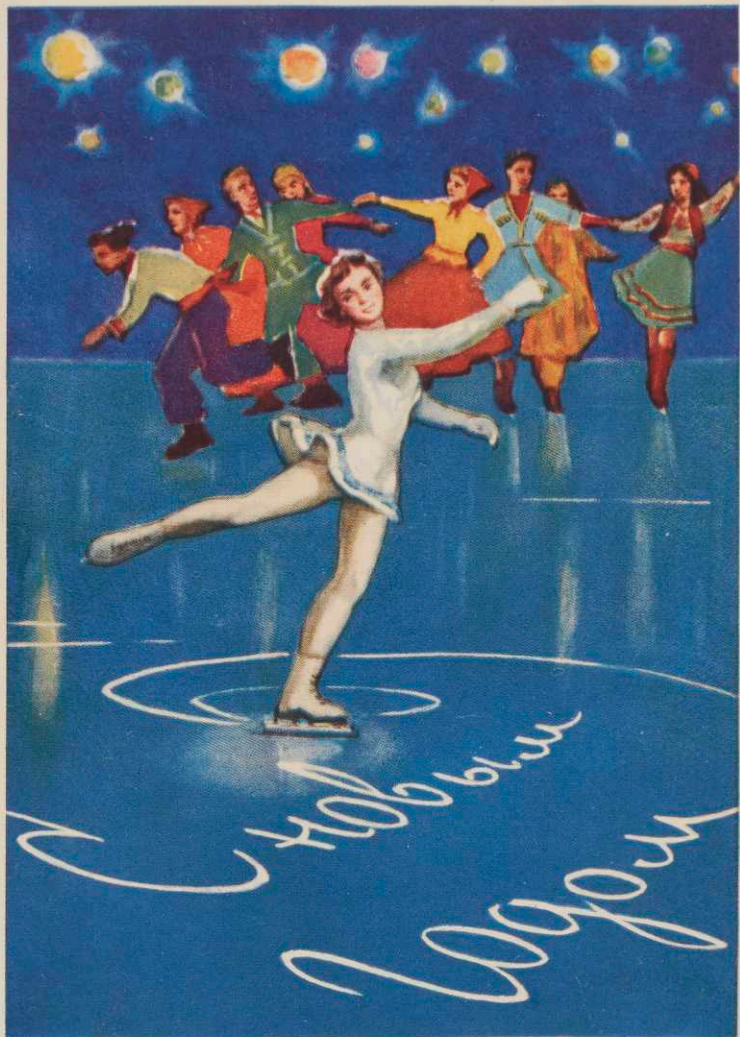
Адрес отправителя _____

худ. доцент, канд. техн. наук*

Издание Министерства связи СССР. Моск. печ. ф-ка Гознака. 1959. Зак. 13128.

Цена художественной карточки с маркой 40 коп.

[Са Дос, 1960]



[ca Dec., 1960]



Best wishes for Christmas
and the New Year

Yours,

S. Ryazanova
Художник С. Рязанова

Издание ИЗОГИЗа № 3-711. Тираж 1 000 000.
Подп. к печ. 22 IX-59 г. Цена 20 к. Зак. № 772.
1-я ф-ка офсетной печати ЛСНХ.

[ca Dec. 1960]

Dear Prof and Mrs. Wiener,

Thank you so very much for your recommendation. I shall
truly try to be worthy of it.

I have been investigating the problem of communication
between man and machine by use of the television display unit on the
computer, thus facilitating and expediting changes in the machine.

Also, am working on a logic which might obviate such problems
as "Russell's Paradox". This work in Axiology, or Value Theory,
should prove useful to your future work which we discussed.

Oh: In the Electronics Systems Lab, experiments are being done
on Cray fish's nervous system, and on the human eye by measuring
the change in area of the pupil with different driving frequency.

A seminar was given and the two doctors in charge
said that "the original work on this field was started
here in Boston years ago by Dr. Wiener."

He went on to give a description of some of your methods.

which seemed strangely familiar to me.

Well, Sir, I thank you again for your kindness.

I am so looking forward to working with you. my best to

Mrs. Wiener.

Sincerely,

John Kotelly

[ca Dec., 1960]

Craig Pease
3040 N. 2nd St.
Apt. 210
Phoenix, Arizona

Dear Dr. Wiener,

I know you are an extremely busy man, and it is certainly assumptuous of me to expect an answer from you, but one can only try. I am writing to you because of your great knowledge of cybernetics, and because of this, I believe you can be of great help to me if you will. I am in the process of writing a research paper on The Determinants of Consciousness and Identity in the Human Being (or what, in philosophical terms might be called the problems of the self), and I would deeply appreciate hearing your views on these two problems in light of what you know about cybernetics. Do you feel that you are any closer to understanding what it is that one refers to when one speaks of "I" or "me", as a result of your work in cybernetics? Do you think that consciousness is the activity of some portion of the brain, or perhaps a product of this? From what you know, does the thing called consciousness exist only when certain activities are going on in a brain and cease to exist when these activities stop? In other words, what do you think consciousness is and what causes it? Do you think there is a definite answer to this question as of yet, and if not, do you feel that further knowledge of human cybernetics will produce an answer to this? Even if you only have tentative conclusions about what consciousness is and what it is produced by, I would be very interested in knowing them.

I realize that the asking of these questions more or less assumes a rather materialistic, mechanical attitude toward

the problems of the self, and although this may be an unfair assumption, your opinions would be of great value to me, whether this is your attitude or not.

The second problem I would like your opinion about is that of personal identity, which is much more elusive, and is claimed by some to be an illusion. It seems the only way to think of this that has any meaning is in the subjective, introspective manner, so if you will think of yourself in this problem, it may make my questions more meaningful. If you wanted to preserve your consciousness, not just any consciousness, what would be the minimum that would have to be kept alive of the body you now have? Would it be just the brain, or only a certain part of it? I know this seems to be the same as the questions on the first page, but I do believe there is another question here--that of the identity of separate consciousnesses. In inanimate objects, if the object remains the same, unchanged, over a period of time, we say it is the same object at both times. But in the human being it seems that nothing stays the same throughout life, since cells are always being replaced, etc. If there is nothing in the determinants of consciousness that stay the same throughout life, what then are the determinants of the particular self or consciousness? Or does it have to be an unchanging something(s)? Could it be that only the continuousness of the particular consciousness is what determines its identity? If continuity is all that is needed to preserve this identity, then could consciousness be altered as radically as desired without destroying the individual's feeling

of self or existence? For instance, if it were possible to hook up electronic circuits to the circuits to the circuits of the brain, and gradually increase their number, with a corresponding increase in mental ability, could one transfer this consciousness to the electronic circuits, assuming they could do everything the human brain does? This brings up the question of whether any brain that man builds that is aware of its environment can have a consciousness like that of man? Maybe all these are only meaningless questions, that is, without referents. I would enjoy your opinion about this.

I know that I have not stated these questions as clearly as they might have been, but I hope you will be able to understand what I was getting ^{at} in spite of my inadequacies. I certainly will appreciate deeply all of your ideas about these questions, as they are very important questions to me personally as well as being pertinent to my paper. I know, as I said before that you must be a very busy person, but I will be eternally grateful if you could send me just the briefest comments before next Tuesday. If so soon a reply is inconvenient, I would still appreciate hearing from you at your leisure. Thank you so very much for your time and patience.

Sincerely yours,

Craig Pease

[ans 12/23/60]

MEDICAL COLLEGE OF VIRGINIA

MEDICINE DENTISTRY PHARMACY NURSING

RICHMOND, VIRGINIA

December 1, 1960

Professor Norbert Wiener
Mass. Institute of Technology
Cambridge, Mass.

Dear Professor Wiener:

We are now entering the third year of an interesting and vigorous program of informal education here at the Medical College of Virginia. This program is made possible by a grant from the Old Dominion Foundation and is designed to bring to our students the stimulus of special visits from scholars of national and international distinction. Our plan has been to invite these visitors to come to Richmond and lead an informal discussion with our students and also if possible to present a special lecture of a more formal character to the faculty and students of the College. The Medical College of Virginia as a modern medical center comprises schools of medicine, dentistry, pharmacy, nursing and graduate studies as well as related training programs. As our informal education program has worked in the past, we have invited as our guests primarily those who are not directly concerned in the medical field but have preferred to ask leaders in other areas of science, philosophy, politics, theology and the arts.

Please consider this letter a cordial invitation to you to come to the Medical College of Virginia as a lecturer in this series. We hope you can arrange a visit some time between January 1 and May 15, 1961. We would appreciate your speaking to us on some aspect of "Machines and Men".

We are in a position to defray the costs of your travel and other expenses and also to offer an honorarium. Your visit would be arranged for a single day and we would plan an informal dinner party in your honor at which student leaders and some of our faculty would have an opportunity of meeting you.

If you are able to join us (as I very much hope you can) please let me know what date would suit you, what subject you would like to speak to us on and whether you would be willing to present one formal address as well as lead an informal student discussion. Also please indicate the amount of the honorarium that you would consider suitable.

Cordially yours,

Ebbe Curtis Hoff

Ebbe Curtis Hoff, Ph.D., M.D.
Dean
School of Graduate Studies

ECH:mf b

[ans 12/22/60]

December 1, 1960

Professor Norbert Wiener
163 Via Manzoni
Naples, Italy

Dear Professor Wiener:

It was very good to hear from you. Your entire trip seems very interesting and I know that you and Margaret are enjoying it very much. I was also very much pleased that the scientific arrangements in Naples are favorable. The work which you described in your letter is most interesting and I will be looking forward to hearing more about it.

As you indicated in your letter, the spring semester here begins Monday, February 6. Your first class would be scheduled for Wednesday, February 8. If you find that you are not able to be here for that first meeting of the class we will of course be glad to make temporary arrangements to handle that. For special reasons we want you and Margaret to keep open the night of Saturday, February 11.

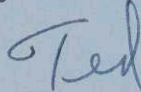
I think that you plan of alternating the fall and spring terms is an excellent one. It would work out fine from our point of view and I can see that it gives you some longer periods for the work you want to do away from M.I.T.

Everything seems to be going well in the Department this year. We are enjoying very much having Irving Segal with us. We have not yet made any new appointments for next year but hope to make at least one or two.

Lucy joins me in sending our best regards to you and Margaret. We look forward to seeing you when you return.

With best personal regards.

Very sincerely yours,



W. T. Martin

WTM/bas

FOLD SIDES OVER AND THEN FOLD BOTTOM UP
MOISTEN FLAP WELL AND APPLY PRESSURE TO SEAL

NO ENCLOSURES
51

Prof. W. T. Martin
Math. Dept., M.I.T.
Cambridge 39, Mass.
U. S. A.

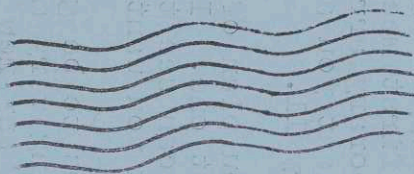


Professor Norbert Wiener
163 Via Manzoni
Naples, Italy

FIRST FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

SECOND FOLD



DO NOT USE TAPE OR STICKERS TO SEAL

PERMITTI

163 Via Manzoni, Naples, Italy
December 1, 1960

Professor Harald H. Nielsen
Department of Physics and Astronomy
The Ohio State University
174 West 18th Avenue
Columbus 10, Ohio
U.S.A.

Dear Professor Nielsen:

Your letter of November 9, which was forwarded to me here in Italy, should have received an answer before this, but due to travels in Europe I am somewhat behind in my correspondence.

First may I thank you for the honor of asking me to be the second Alpheus W. Smith lecturer this coming year. I very much wish I were in a position to accept. At present I am the guest of the Institute of Theoretical and Nuclear Physics at the University of Naples and do not expect to be back in the United States until early in February. With previous engagements and the backlog of work awaiting me upon my return I would not be able to do justice to the lecture I am asked to give.

It is therefore with deep regret that I must decline the honor. I am sure you will understand my reasons.

With best wishes to you and your colleagues and thanking you again for thinking of me, I remain,

sincerely,

Via Manzoni, Naples, Italy
December 1, 1960

Professor Charles Su"sskind
Cory Hall
University of California
Berkeley4, California

Dear Professor Süsskind:

First let me apologize for being so late in answering your inquiry of September concerning the article you asked me to write for the Encyclopedia of Electronics. I have been travelling extensively in Europe all summer and have not yet caught up with myself nor the accumulated correspondence.

With the commitments I have already I just don't see where I would find the time to do the article you require, so I am afraid my answer must be no.

Wishing you every success in the valuable work you have undertaken and hoping you will forgive this late refusal,
I am,

sincerely,

The Technology Press



MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS

December 2, 1960

Professor Norbert Wiener
163 Via Manzoni
Naples, Italy

Dear Professor Wiener:

I enclose the galley proof for all of the old part of Cybernetics. I am sending you this proof just for your information. I expect that Tobey Raisbeck and Miss Boyd will do the real proof reading, but if your eye happens to fall on any errors we should be glad to hear about them.

I hope to have some word about the supplementary chapters that you have prepared for this second edition soon.

It will not be necessary for you to make any corrections in Extrapolation, Interpolation and Smoothing of Stationary TimeSeries. We have reprinted it without change.

Very truly yours,

Lynwood Bryant

Lynwood Bryant
Director

LB:SS

Please do not try to make any verbal improvements in this part of Cybernetics.

You remember our policy is to reprint the classic with no verbal changes, but only the correction of outright errors.



SCHOOL OF INDUSTRIAL MANAGEMENT

ESTABLISHED UNDER A GRANT FROM
THE ALFRED P. SLOAN FOUNDATION, INC.

50 MEMORIAL DRIVE
CAMBRIDGE 39, MASSACHUSETTS

December 2, 1960

Professor Norbert Wiener
163 Via Manzoni
Naples, Italy

Dear Professor Wiener:

I am enclosing the preliminary calendar of a lecture series which the School of Industrial Management is sponsoring next spring to mark the MIT Centennial. The theme of the series is "Management and the Computer of the Future". Enclosed also is a memo to authors which mentions the roles in each session of the discussants and chairman.

In planning for the lecture series, we have hoped from the start that you would agree to serve as a discussant for one of the sessions. We would be very pleased to have you participate in whichever session you wished. We tend to think that the C. P. Snow session might be most appropriate, but leave the final judgment to you.

Please accept our apologies for disturbing your European trip with this matter. It is simply that we are very eager to have you participate in our series, and we are forced by scheduling requirements to make our arrangements well in advance.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Martin Greenberger".

Martin Greenberger
Lecture Series Chairman

MG:cb
encls.

[encl 12/13/60]

Massachusetts Institute of Technology
School of Industrial Management

CENTENNIAL LECTURE SERIES CALENDAR

(November 25, 1960. Preliminary)

Talks begin at 8 P.M. on the day indicated.

- March 9, 1961 Alan J. Perlis
Professor of Mathematics and
Director of Computation Center
Carnegie Institute of Technology
- "Automatic Programming, Information Retrieval,
and Education".
- March 13 Jay W. Forrester
Professor of Industrial Management
MIT, School of Industrial Management
- "Managerial Decision Making as a Feedback System".
- March 22-23* Herbert A. Simon
Professor of Administration
Carnegie Institute of Technology
- "Computer Simulation of Human Thinking and
Problem Solving".
- March 27-29* John G. Kemeny
Chairman of the Department of Mathematics and Astronomy
Dartmouth College
- "The Use of Computers for Making Scientific Information
Readily Available for Research".
- May 5 Sir Charles Percy Snow
Author
London, England
- "Scientists and Decision Making".
- May 8-12* George W. Brown
Director of Western Data Processing Center
UCLA, Graduate School of Business Administration
- "Description of Complex Processes and Computer
Programming".

May 15-16*

Nicholas C. Metropolis
Director of the Institute of Computer Research
Enrico Fermi Institute for Nuclear Studies
University of Chicago

"Trends in Computer Design".

May 22-26*

~~To be announced.~~

Dr. John R. Pierce

*Director of Research - Communications
Principles*

* Day to be set.

Bell Telephone Laboratories

November 25, 1960.

Memo to: Authors

Subject: Centennial Lecture Series

Enclosed is a preliminary calendar for the Centennial Lecture Series. A list of discussants and session chairmen will be sent to you early in 1961.

Each session is scheduled to commence at 8 P.M. on the day indicated. The format of a typical session is as follows:

1. Introductory remarks by session chairman.
2. Author's presentation.
3. Prepared comments by discussants.
4. Author's reply.
5. Open discussion.

You will notice that certain talks have not yet been assigned to a definite date. These assignments are being postponed to provide us with some scheduling flexibility.

As you know, papers will be published together with bibliography, discussion, and unifying commentary in an edited volume at the conclusion of the series. Technical material supporting a paper can be included in the volume as an appendix to a paper, even though it is not presented in your talk. To assist us in preparing the volume we would greatly appreciate any worthwhile thoughts, notes, and references which you may have relating to our overall theme in general, as well as to your topic in particular. We request that the completed paper be submitted several weeks before presentation to allow your discussants time to prepare their comments.

Please let me hear from you if you have any questions on the calendar or other matters.

Martin Greenberger
Lecture Series Chairman

Enclosure

Excerpts From Snow's Speech to American Scientists

Following are excerpts from an address, "The Moral Un-Neutrality of Science," by Sir Charles P. Snow, prepared for delivery before the American Association for the Advancement of Science in New York yesterday:

The discovery of atomic fission broke up the world of international physics. "This has killed a beautiful subject," said Mark Oliphant, the father-figure of Australian physics, in 1945, after the bombs had dropped. In intellectual terms, he has not turned out right. In spiritual and moral terms, I sometimes think he has.

A good deal of the international community of science remains in other fields—in great areas of biology, for example. Many biologists are feeling the same liberation, the same joy at taking part in a magnanimous enterprise, as physicists felt in the Twenties. More than likely, the moral and intellectual leadership of science will pass to biologists, and it is among them we shall find the Ruthenbergs, Bohrs and Franks of the next generation.

Physicists have had a bitter task. With the discovery of fission, and with some technical breakthroughs in electronics, physicists became, almost overnight, the most important military resource a nation-state could call on. A large number of physicists became soldiers not in uniform. So they have remained, in the advanced societies, ever since.

It is very difficult to see what else they could have done. All this began in the Hitler war. Most scientists thought then that nazism was as near absolute evil as a human society can manage. I myself thought so. I still think so, without qualification. That being so, nazism had to be fought, and since the Nazis might make fission bombs—which we thought possible until 1944, and which was a continual nightmare if one was remotely in the know—well then, we had to make them too. Unless one was an unlimited pacifist, there was nothing else to do. And unlimited pacifism is a position which most of us cannot sustain.

Moral Difference Seen

Therefore I respect, and to a large extent share, the moral attitudes of those scientists who devoted themselves to making the bomb. But the trouble is, when you get on to any kind of moral escalator, to know whether you're ever going to be able to get off. When scientists became soldiers they gave up something, so imperceptibly that they didn't realize it, of the full scientific life. Not intellectually. I see no evidence that scientific work on weapons of maximum destruction has been in any intellectual respect different from other scientific work. But there is a moral difference.

It may be—scientists who are better men than I am often take this attitude, and I have tried to represent it faithfully in one of my books—that this is a moral price which, in certain circumstances, has to be paid. Nevertheless, it is no good pretending that there is not a moral price. Soldiers have to obey. That is the foundation of their morality. It is not the foundation of the scientific morality. Scientists have to question and if necessary to rebel.

I don't want to be misunderstood. I am not an anarchist. I am not suggesting that loyalty is not a prime virtue. I am not saying that all rebellion is good. But I am saying that loyalty can easily turn into conformity, and that conformity can often be a cloak for the timid and self-seeking. So can obedience, carried to the limit.

When you think of the long and gloomy history of man, you will find far more, and far more hideous crimes, have been committed in the name of obedience than have ever been committed in the name of rebellion. If you doubt that, read William Shirer's "Rise and Fall of the Third Reich." The German officer corps were brought up in the most rigorous code of obedience. To themselves, no more honorable and God-fearing body of men could conceivably exist.

Yet in the name of obedience they were party to, and assisted in, the most wicked large-scale actions in the history of the world.

Scientists must not go that way. Yet the duty to question is not much of a support when you are living in the middle of an organized society. I speak with feeling here. I was an official for twenty years. I went into official life at the beginning of the war, for the reasons my scientific friends began to make weapons. I stayed in that life until a year ago, for the same reason that made my scientific friends turn into civilian soldiers. The official life in England is not quite so disciplined as a soldier's, but it is very nearly so.

Losing Power to Say 'No'

I think I know the virtues, which are very great, of the men who live that disciplined life. I also know what for me was the moral trap. I, too, had got on to an escalator. I can put the result in a sentence: I was coming to hide behind the institution, I was losing the power to say "no."

Only a very bold man, when he is a member of an organized society, can keep the power to say 'no.' I tell you that, not being a very bold man, or one who finds it congenial to stand alone, away from his colleagues. We can't expect many scientists to do it.

Is there any tougher ground for them to stand on? I sug-

gest to you that there is. I believe that there is a spring of moral action in the scientific activity which is at least as strong as the search for truth. The name of this spring is knowledge. Scientists know certain things in a fashion more immediate and more certain than those who don't comprehend what science is. Unless we are abnormally weak or abnormally wicked men, this knowledge is bound to shape our actions. Most of us are timid; but to an extent, knowledge gives us guts. Perhaps it can give us guts strong enough for the jobs in hand.

I had better take the most obvious example. All physical scientists know that it is relatively easy to make plutonium. We know this, not as a journalistic fact at second-hand, but as a fact in our own experience. We can work out the number of scientific and engineering personnel it needs for a nation-state to equip itself with fission and fusion bombs. We know that for a dozen or more states, it will only take perhaps six years, perhaps less. Even the best-informed of us always exaggerates these periods.

This we know, with the certainty of—what shall I call it?—engineering truth. We also most of us are familiar with statistics and the nature of odds. We know, with the certainty of statistical truth, that if enough of these weapons are made—by enough different states—some of them are going to blow up. Through accident, or folly, or madness—but the motives don't matter. What does matter is the nature of the statistical fact.

Responsibility Is Direct

All this we know. We know it in a more direct sense than any politician because it comes from our direct experience. It is part of our minds. Are we going to let it happen?

All this we know. It throws upon scientists a direct and personal responsibility. It is not enough to say that scientists have a responsibility as citizens. They have a much greater one than that, and one different in kind. For scientists have a moral imperative to say what they know. It is going to make them unpopular in their own nation-states. It may do worse than make them unpopular. That doesn't matter. Or at least, it does matter to you and me, but it must not count in the face of the risks.

For we genuinely know the risks. We are faced with an "either-or," and we haven't much time. Either we accept a restriction of nuclear armaments. This is going to begin, just as a token, with an agreement on the stopping of nuclear tests. The United States is not going to get the 99.9 per cent "security" that it has been asking for. It is unobtainable, though there are other bargains that the United States could probably

secure. I am not going to conceal from you that this course involves certain risks. They are quite obvious, and no honest man is going to blink them.

That is the "either." The "or" is not a risk but a certainty. It is this. There is no agreement on tests. The nuclear arms race between the U. S. A. and the U. S. S. R. not only continues, but accelerates. Other countries join in. Within, at the most, six years, China and several other states have a stock of nuclear bombs. Within, at the most, ten years, some of these bombs are going off.

I am saying this as responsibly as I can. That is the certainty. On the one side, therefore, we have a finite risk. On the other side we have a certainty of disaster. Between a risk and a certainty, a sane man does not hesitate.

It is the plain duty of scientists to explain this "either-or". It is a duty which seems to me to come from the moral nature of the scientific activity itself.

Can Transform World

The same duty, though in a much more pleasant form, arises about the benevolent powers of science. For scientists know, and again with the certainty of scientific knowledge, that we possess every scientific fact we need to transform the physical life of half the world. And trans-

form it within the span of people now living. I mean, we have all the resources to help half the world live as long as we do, and eat enough. All that is missing is the will. We know that. Just as we know that you in this country, and to a slightly less extent we in ours, have been almost unimaginably lucky. (We are sitting like people in a smart and cozy restaurant, and we are eating comfortably, looking out of the window into the streets. Down on the pavement are people who are looking up at us: people who by chance have different colored skins from ours, and are rather hungry. Do you wonder that they don't like us all that much? Do you wonder that we sometimes feel ashamed of ourselves, as we look out through that plate glass?)

Well, it is within our power to get started on that problem. We are morally impelled to. We all know that, if the human species does solve that one, there will be consequences which are themselves problems. For instance, the population of the world will become embarrassingly large. But that is another challenge. There are going to be challenges to our intelligence and to our moral nature as long as man remains man. After all, a challenge is not, as the word is coming to be used, an excuse for slinking off and doing nothing. A challenge is something to be picked up.

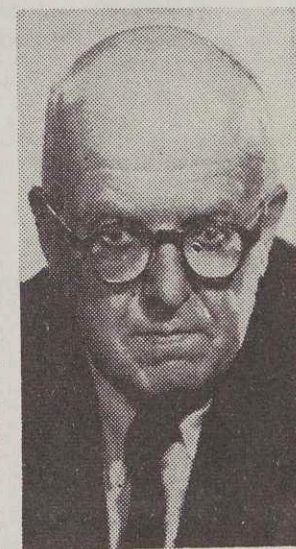
Of Novels and Neutrons

Charles Percy Snow

SIR CHARLES PERCY SNOW is a large, bald Englishman whose flinty viewpoints have struck many sparks in his London clubs, the Athenaeum and the Savile. They struck some sparks yesterday, too, when he told American scientists that within a decade some atomic

bombs would have been exploded through "accident, or folly or madness." Sir Charles speaks with authority on such matters. He moves with equal facility in the worlds of science, literature and government. Through his writings he has portrayed the struggles, triumphs and disasters of those worlds to an increasingly large number of persons.

A series of eight novels entitled "Strangers and Brothers"—there are three more to come—have established Sir Charles as perhaps the most successful interpreter of those three worlds now writing in Britain or America. He writes under the name C. P. Snow.



Camera Press-Pix

NATIONAL COMMITTEE FOR A SANE NUCLEAR POLICY
17 East 45th Street, Room 401
New York 17, N. Y.

UNIVERSITY OF VIRGINIA
STUDENT UNION
NEWCOMB HALL

December 2, 1960

Office Telephone
22166-Ext. 3286

STUDENT UNION

Leighton P. Roper
President
John H. Wright
Vice President
James H. Laird
Secretary

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T. Braxton Woody

Mr. Norbert Wiener
53 Cedar Road
Belmont, Massachusetts

Dear Mr. Wiener:

The Student Union of the University of Virginia is planning to sponsor a symposium on recent developments in the arts and sciences on the 1st, 2nd, and 3rd of March, 1961. It is hoped that several distinguished writers and scholars will be able to come to the University for the three-day period to give one public address on a subject of their choice and to meet with students in less formal groups. It would give us great pleasure to have you participate in this program.

The areas to be covered by the symposium are architecture, medicine, science and history. Naturally these will be narrowed a great deal according to the speaker's specialty.

The honorarium would be \$500 with transportation provided to and from Charlottesville. The Student Union and other student organizations who are sponsoring the symposium will also provide for expenses during the three-day stay here.

If your calendar is open, we would like to correspond with you further. We hope very much that it will be convenient for you to visit the University of Virginia.

Sincerely yours,

Douglas Deane Hall

Douglas Deane Hall
Chairman, Symposium Committee

DDH/kw

[enc 12/22/60]

UNIVERSITETET I OSLO

INSTITUTT FOR GENERELL OG
EKSPERIMENTELL PATOLOGI



OSLO. 2.12.1960.
RIKSHOSPITALET

To
Professor Norbert Wiener,
The Massachusetts Institute of Technology,
Mass.
U.S.A.

Dear prof. Wiener :

Thank You so much for the wonderful days in Naples this summer, where I had the pleasure of meeting Your wife and You and listen to Your presentations at the Symposium of Cybernetic Medicin.

By separate cover I have today send You the manuscript of my presentation in Naples. As far as I remember, I spoke on the first days afternoon, when You were so tired and did not attend the meeting.

I would be very glad if it is possible for You to read the paper and give me Your opinion of the working plan mentioned there. I am engaged in work now to get money for a cybernetic analysis of my experimental results: the building up of a mathematical model of the functional conditions in epidermis, the interplay between cell renewal and cell loss and the use of a computer machine to produce hypothetical growth curves with this machine and after that do an experimental test of this curves.

It is a little difficult in Norway to get money for analyses like this, because cybernetics is very little known among medical doctors in Norway and they do not understand the problem and the possibilities, because they do not understand the underlying philosophy.

Certainly it would be a very valuable contribution to my application for this money if You think it is possible for You to declare that in Your opinion this type of work may be fruitful, that You have seen my plans and give it Your recommendations.

Remembering Your excellent way of speaking Danish, I would like to end this letter by saying: Jeg ønsker Deres Hustru og Dem en riktig god og velsignet jul og et godt nytt år. Håper det en gang skal bli mulig, slik vi talte om i Neapel, å se Dem i Oslo.

Hjertelig hilsen
Deres

Olav Hilmar Iversen
Olav Hilmar Iversen.

P.S. Jeg glemmer aldri Deres karakteristikk av italienske cigarer:
" Fanden selv kunne ikke ryge dem ! " .

[ans 3-10-61]

163 Via Manzoni, Naples, Italy
December 2, 1960

Professor A. Masturzo
Via Roma 348
Naples

Dear Professor Masturzo:

I am enclosing herewith the report you asked for the other day for the publication of the final report on the First Interantional Congress of Cybernetic Medicine. I hope it will meet your requirements.

Let me at the same time acknowledge the receipt of our travel expenses from Hannover, Germany to Naples for the Congress, of \$158.00.

With best wishes to you and Mrs. Masturzo I remain,

Sincerely,

Applications of Cybernetics to Medicine and Biology.

by

Norbert Wiener

Cybernetics is by definition the study of control and communication whether in machines or in living organisms. In this control the principle of feedback is central of the machine or organized system which continually corrects its own errors of performance. The simplest type of feedback is linear in which the correction is directly proportional to the error. Such a feedback will produce a certain degree of homeostasis, but most of the homeostasis of living organisms is due to feedbacks which are not linear. A linear feedback if it is extensive can bring a living system into a state of oscillation of ever increasing amplitude. Such a contingency must be guarded against if the system is not to break down. This reason also is enough to minimize the use of linear feedbacks in living organisms. To prevent such a catastrophe most feedbacks contain a mechanism to reduce the amount of feedback if it should become excessive, and such a reduction is a form of non-linearity.

Among the most interesting of homeostatic feedbacks are those which maintain an oscillation at a statistically constant level without allowing it to get out of hand. A very interesting example of such feedback responsible for the maintenance of the oscillations of the nervous system on an electroencephalograph. These fluctuating potentials are beautifully suited for study by the methods of harmonic analysis. Such an analysis can be carried out by means of a device to obtain the autocorrelation of an electroencephalogram

2.

with itself under a delay. This process can be mechanized and the mechanism in question is completely analogous to the Michelson interferometer.

Once the autocorrelation is obtained the power spectrum will be given by the fourier transform of the autocorrelation function. The technique of obtaining this fourier transform is well understood and is exactly the same as that which we employ in using the Michelson interferometer as a spectroscope. As a result of this technique we find that the brain wave of at least many human beings has a great deal of its power concentrated in the region around ten to twelve cycles per second and that in fact a significant sharp power band is found of a width of a fraction of a cycle. The narrowness of this band is remarkable, and it suggests that we here have a phenomenon by which various oscillations in the brain pull themselves together in frequency. The well known fact that the brain can be driven in frequency by a flickering light in the eye of nearly but not exactly its own frequency makes this pulling together probable.

In a purely linear system an input of one frequency can have no influence whatever on another frequency. Thus we are dealing with a nonlinear phenomenon. Are there any cases of an engineering nature where such a nonlinear interaction between different frequencies produces a narrow frequency band?

One case of this sort is familiar to every electrical engineer. It concerns the frequency regulation of electrical generating systems. In such a system the individual alternators are driven by prime movers whose speeds are regulated by goverors. The electrical outputs of the generators are connected in parallel to busbars which lead to the external circuit. Various switching devices are provided to permit the connection of the generators/ to the busbars only when they are within narrow limits of phase and frequency.

Now we see a remarkable phenomenon. If any generator is going a little fast it takes upon itself more than its own share of the load, and if it is going slow it takes upon itself less than its own share. This tendency to slow down the fast generator and speed up the slow one, thus superimposing on the control of the generators by their individual governors a more precise control by a virtual governor consisting of the individual governors and the connections of the entire system. This virtual governor will result in a more precise frequency control than ~~than~~ the generators would have singly. In other words, we find both theoretically and practically a narrowing of the frequency bands quite analogous to that shown in the electroencephalogram.

Much work ~~xxxx~~ remains to be done in this field. In particular, the concepts here expounded can probably be applied with advantage to a large field of physiological processes. This strikes me as one of the most promising lines of study of the cybernetics of living systems.

5. Dec. 60

3, rue d'Aubeterre
Montpellier

Dear Professor Wiener,

When I visited MIT last August I learned that you were to be in Naples this semester. I am visiting professor in Montpellier for this year, which I find very congenial in every sense. As you probably know, Kahane is here and there are mathematical visitors almost every week. Izumi, a Fourier series man, is here for a couple of months from Hokkaido. I am hoping that it will be possible for you to visit in Montpellier for a while before you leave this part of the world. It would certainly give great pleasure to the mathematicians here to make your acquaintance, and to have a discussion, especially as your kind of mathematics is considerably cultivated here.

Now I am planning to come down to Napoli over the holidays and would be very pleased to see you during that time if it will be possible. Could you please drop me a line if you will be free at some time between 24Dec and 3 Jan ?

I apologize for the brevity of this letter, which is due to pressure to complete the redaction of a paper .

With warmest regards to you and to Mrs Wiener,

E. J. Akutowicz

Edwin J. Akutowicz

answered

December 5, 1960

Mr. Arthur B. Krim
American Committee for the
Weizmann Institute of Science
515 Park Avenue
New York 22, New York

Dear Mr. Krim:

This is in reply to your letter of November 28 addressed to Dr. Wiener. I am sorry that Dr. Wiener will not be able to accept your invitation to the Weizmann Institute Celebration on Tuesday, December 13 as he is in Europe until the first of February.

Thank you for your invitation. I am forwarding it to him.

Sincerely yours,

Betty Ann Sargent
Secretary

COLLOQUES PHILOSOPHIQUES DE ROYAUMONT

Secrétariat : 173, boul. Saint-Germain, Paris 6è

Paris, le 7 décembre 1960

Monsieur, le Professeur,

Nous pensons que vous n'avez pas dû recevoir notre lettre du 25 novembre adressée à l'Institut de Physique de Naples.

Elle avait pour objet le prochain colloque philosophique de Royaumont dont le thème sera : "Le concept d'information dans la science contemporaine."

Il paraît difficile de tenir une réunion sur ce sujet sans être assuré de votre présence. Deux dates sont actuellement proposées : 6 - 10 juillet 1961, 7 - 11 septembre 1961. M. WAHL, président du comité organisateur, me charge de vous demander celle de ces deux dates qui vous conviendrait le mieux.

Vous nous rendriez grand service en nous donnant votre réponse dès que possible. Nous pourrions ainsi la transmettre au Comité lors de sa prochaine réunion.

Veillez agréer, Monsieur le Professeur, l'expression de notre respectueuse considération.

C. de Chambost

C. de Chambost (Mlle),
Secrétaire.

M. le Professeur N. WIENER
Institute of Technology
Dept of Mathematics

CAMBRIDGE 39 (Mass.)
U.S.A.

I have sent letter explaining you cannot participate, but forward it to you in case you have other plans.

163 Via Manzoni, Naples, Italy
December 7, 1960

Mlle C. de Chambost
Secrétaire
Colloques Philosophiques De Royaumant
173 Boul Saint-Germain
Paris, 6e
France

Chere Mlle. de Chambost:

J'ai recu votre lettre du 25 novembre, dans laquelle vous me donnez les dates du prochain reunion Des Colloques Philosophiques de Royaumont... Je ne serai pas en Europe en 1961. Quant a 1962, il n' est pas bien possible pour moi de faire des projets aussi loin dans l'avenir.

Veuillez agreer, cher mademoiselle, l'expression de ma respectueuse consideration.

163 Via Manzoni, Naples, Italy
December 7, 1960

Mr. Clarence E. Hardgrove
Vice President, the National Council of Teachers of Mathematics
Northern Illinois University
DeKalb, Illinois
U.S.A.

Dear Mr. Hardgrove:

Thank you very much for your kind letter of November 11, in which you ask me to be the speaker for the opening session of the Summer Meeting of the National Council of Teachers of Mathematics in Toronto this coming August. I am, indeed, greatly honored by your request and wish it were possible for me to accept.

My calender for this coming year is already quite crowded, in addition to which there will be a great deal of catching up to do when I return to M.I.T. in February after an absence of eight months. This absence also explains in part the delay in answering your letter, for which I apologize.

With every wish for a successful meeting of your association, I remain,

Sincerely,

163 Via Manzoni, Naples, Italy
December 7, 1960

Mr. K.G. Hulten
Director
Moderna Museet
Stockholm
Sweden

Dear Mr. Hulten:

Thank you very much for your kind letter of November 8,
in which you inquire if I have anything that might be suitable
to exhibit at your International Exhibition of Kinetic Art
next summer. I feel very much honored by your request.

Unfortunately, I do not have anything that might lend
itself to such a purpose, nor any manifest dealing with the
relationship of art and technique, etc.

Wishing you every success for your exhibition next
summer, I remain,

very sincerely,

163 Via Manzoni, Naples, Italy
December 7, 1960

Mr. Marmadashvili:
Voprosy Filisofi
Institute of Philosophy
Volhonka 14
Room 418
Moscow, Russia

Dear Mr. Marmadashvili:

I hope you will pardon the delay in sending you the article I had promised in October. The fact is that my Scandinavian trip followed by my visits to Prague and Budapest, and our later visit to Germany have given me a mass of impressions which were delightful to experience, but which constituted a great strain mentally and physically. Now that my wife and I are down in Italy in the middle of our four months stay, I found time to give the article my proper attention and to resume my own scientific work.

I enclose a copy of the article and I believe it will be about what you want. I have written it the only way I can as an expression of my own opinions and not as a polemic nor as a piece of propaganda. This is in fact what I think you wanted.

I have had several requests to publish the paper here in Italy and elsewhere. The paper is written for your journal and you have first choice and rights in it. If, however, you have no objection to my also publishing it elsewhere and I receive your permission and that of your Society for a supplementary publication outside of Russia, I should like to hear from you as soon as possible. Please confirm also that you have received this article.

I was very much struck by the courtesy and cordiality of my reception in Moscow and elsewhere in Russia, and I truly appreciate the ability and integrity of my Russian colleagues.

I sincerely hope that in the future things may turn out that my wife and myself can renew our contacts and extend them. In the meantime we shall make an effort to be better prepared in the use of the Russian language. With best wishes, I remain,

Sincerely,

P. S. The French-English language records will probably have to wait until we return to the United States in February.

[ans 1/10/60]

163 Via Manzoni, Naples, Italy
December 7, 1960

Professor H.L. Tallman
Assistant Head
Physical Sciences Extension
University of California
Los Angeles, California
U.S.A.

Dear Professor Tallman:

Thank you for your letter of November 23, which confirms our arrangement for next summer. The dates July 17 - 18, 1961 are perfectly agreeable to me, so let us consider them definite. I am also very pleased that Mr. Marcus will be my assistant again. Since he is already familiar with the work from the summer 1959, it will be much easier for both of us this time.

The second title you suggest for my lectures, Harmonic Analysis for Engineers and Scientists, is perfectly agreeable to me since your committee prefers this title.

With best wishes for the coming Holidays and looking forward to being with you again, I remain,
sincerely,

163 Via Manzoni, Naples, Italy
December 7, 1960

Mr. D. E. Voelker, Head
Employee Development Division
U.S. Weapons Laboratory
Dahlgren Va.
U.S.A.

Dear Mr. Voelker:

I have received your letter of November 23, in which you explain to me your program of scientific lecture series and ask if I would be available for such a speaking engagement.

At this time I am in Europe and will not be back at M.I.T. until after February 6. After that date my time is already fully bespoken that it would be unwise for me to take on additional commitments.

Thank you for the honor of asking me. Wishing you every success in your program, I remain,

sincerely,

163 Via Manzoni, Naples, Italy
December 8, 1960

Professor Dr. Alexander M. Letov
Institute of Automatics and Telemechanics
Academy of Sciences USSR
Leningradskoje Shosse 9
Moscow D-40
USSR

Dear Professor Letov:

After a strenuous lecturing tour we are now at a semi-permanent address from where we can attend to our correspondence. We wish to take this opportunity to thank you for your help and advice in making our trip to Russia last summer possible. It was an outstanding personal and scientific experience, the wellorganized congress, the superb entertainment and the opportunity to see so much of Russia and its life, the courtesy and the friendliness of yourself and your colleagues made a great impression on us. We came away hoping that this would not be our last visit.

With best wishes and thanking you again, we remain,

sincerely,

163 Via Manzoni, Naples, Italy
December 8, 1960

Professor B. N. Naumov
USSR National Committee of Automatic Control
USSR Academy of Sciences
Kalanchevskaya #15315a
Moscow E-53
USSR

Dear Professor Naumov:

We have finally come to a stopping place after much travel and lecturing this summer and fall and are now able to catch up with our correspondence. May we thank you again for helping us in making our trip to Russia possible. It was an outstanding experience, scientifically, personally, in every way. We were delighted with the courtesy and friendliness of yourself and your colleagues, the wellorganized congress, the opportunities offered us to see much of life in Russia, as well as the wonderful entertainment. Our visits to Kiev and Leningrad were equally rewarding. We came away hoping that this would not be our last visit.

With best and thanking you again, we remain,
sincerely,

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
RESEARCH LABORATORY OF ELECTRONICS
CAMBRIDGE 39, MASS.

*answered
recom. in letter*

Room 20B-221
December 9, 1960

Professor Norbert Wiener
c/o Professor Cajaniello
University of Naples
163 Via Manzoni
Naples, Italy

Dear Professor Wiener:

I have put off writing to you, wanting to be able to send results with my next letter, but I now realize that it will be at least a few weeks before I have further information. The reason for this is the pressure of my courses, which somehow got ahead of me during the first few weeks of the term.

I am honored by your offer to take me on for a thesis this spring. I am a senior in my last semester and am applying for admission to the math department as a graduate student for the spring term. However, my cum is only about 3.8, and I might not be admitted. I would like to ask you to please write me a recommendation.

If I am admitted for the spring term, one idea I could perhaps pursue for a thesis, if you think it worthwhile, is the generalized harmonic analysis of $f^*(t) = f(t)\exp(-iw(t)t)$, where in our present work $f(t)$ would be the brain wave recording and $w(t)$ would be a slowly varying function corresponding to the secular variation in the alpha-rythm. If there is a secular variation in the alpha-rythm which manifests itself

in a period as short as our sampling periods, I believe something of this sort would be necessary. Tom Weiss has told me that there have been some generalization of your work to nonstationary processes, but I haven't yet had time to see whether this $f^*(t)$ has been studied.

Tom Weiss and Charlie Molnar have determined to help in a renewed effort to once and for all answer your questions about the brainwave. Professor Rosenblith has indicated that if I am admitted to the math department for the spring term, I would be able to get a research assistance-ship with the CBL. Another development is that Professor Rosenblith has agreed that the autocorrelation should be done digitally, and Tom Weiss has agreed to undertake the programming involved. The very swift TX-2 at Lincoln Lab will be used. This will eliminate a great source of uncertainty. It will also allow us to analyze an $f^*(t)$, if this should prove advisable.

As for the short term objective of finding answers for the brain wave chapter of Cybernetics, I regret that I have not been able to find sufficient time during the last few weeks. Miss Boyd and Professor Bryant are upset about the printer's deadline which I have told them I don't think I can meet, and they would like you to write them about what you wish to do.

I am only just now taking the first term Physics major's junior quantum course, but it is my ambition to learn quantum thoroughly. I hope to combine this with my study and

research in mathematics.

A project which I hope to initiate if I am here next term is a seminar or forum on the problems of armaments. I believe Harvard and MIT could profitably combine forces in this study.

Since I wrote the above, a few days ago, I have met with Professor Rosenblith and Doctor Barlow. Professor Rosenblith will write to you, but Tuesday he asked me to write to you first re the item you asked me to find out about. I shall quote him. "The UNESCO thing is not forgotten; on the contrary!" I believe I have the punctuation correct.

Professor Rosenblith also told me that if I am not admitted to the math department, he would try to get me a job with the Division of Sponsored Research, so I will be able to help carry on your project even if I should not be admitted to the math department in the spring.

Now as to the small amount of results which I have gotten together. Graph I is the same calculation as Graph B of my previous letter except that the points are plotted three times as densely (and except that another 75 points of the correlogram, which had previously been left out, were included in the calculation.) I had suspected that all might not be well in between the points of Graphs A, B, and C (of the last letter,) and indeed, just look at what is happening. For one thing, our preoccupation with "shape" in Graphs A, B, and C was apparently was not justified, for the dip-within-the-peak of Graph I is certainly artifact, since these oscillations are

occurring outside our limit of resolution. But I don't know where they come from, and I haven't had time to try to figure it out. The mysterious dip at 7.75 cps is still "there".

Graphs II and III. These represent the same data. First of all, this is filtered noise! Second, all is not lost, for the sample used is the equivalent of only a three minute EEG. The filter had a Q of 13.2. The time base was 7.5 seconds, Δt was .25 msec. and t_{max} was 185 msec. The frequencies I have written on Graphs II and III must be multiplied by 40. I don't know what is going on here. I suspected the computational filtering, and ran the data through a straight Fourier cosine transformation. The result was almost precisely the same, being only slightly sharper. I must admit I was surprised. Graph IV shows this computation. The x's are from Graph II (or Graph III) with the scale adjusted, to show the contrast. The noise correlogram is also enclosed.

I have not sat down and really thought about these results. Actually, I have not done most of what needs doing, and what I have done since my last letter has been done hurriedly. Here is what I have not done. I expect this list to become the beginning of a Program of Action.

Things I Haven't Done

1. Checked the readings from the correlograms.
2. Made the corrections you suggested in your letter.
3. Read the repeat correlogram, which has been made, corresponding to correlogram No. 4360.

4. Ordered further correlograms to be made from the experiments that have been made.
5. Performed further recordings, this time with control of tape flutter, and done at MIT, as suggested by Tom Weiss and Charlie Molnar, and with their help.
6. Carefully examined and thought about the results we do have.
7. Carefully thought about and studied the theory.
8. Become literate in electroencephalography.
- (9. Further pursued the clipping I sent you this summer.)
10. Made computations analagous to those in Graph I, to correspond to Graphs A and C.
11. Computed noise spectra in addition to that in Graphs II, III, IV.

I shall attempt item 10 immediately, and send you the results as soon as I have them. ^PI have the following vague idea. Harmonic analysis tells us that a function like, say, $\exp(i\omega_0 t)$, $(-\infty < t < \infty)$ is the superposition of infinitely long periodic waves. But this interpretation is merely one that is forced upon us by the application, to (actual) finite cases, of methods which strictly apply only to the case where we consider $\lim_{a \rightarrow -\infty, b \rightarrow \infty}$. The interpretation, it seems, is not "really so," (although the phenomenon of group velocity seems to contradict me here.) It seems to me that our present work needs a transformation which would call a spade a spade; in this case give us something from which we can get back $\exp(i\omega_0 t)$, $(a < t < b)$; ^{a transformation developed directly for the finite case.} I had better mention here, if it is not

already evident, that I don't yet really know what harmonic analysis is all about.

The AAAS devoted its whole fall issue of Daedalus to arms control. I was told yesterday that out of this publication was generated a continuing discussion group among those men at Harvard and MIT who have applied themselves to the problems of armaments. I thought this might be of interest to you.

We are all looking forward to your return.

Sincerely,

Chuck Robinson

Chuck Robinson

cc: Professor Rosenblith
Dr. Barlow

Enclosures:

1. Graph I
2. Graph II
3. Graph III
4. Graph IV
5. Noise Correlogram



ISTITUTO DI MATEMATICA

PIAZZA LEONARDO DA VINCI, 32 - MILANO (550)

TELEFONO 292.135

Milano 11-12-60

Chiar^{mo} prof,

ho il piacere di invitarla, a nome anche
dei colleghi dell'Università e del Politecnico,
a tenere una conferenza presso il nostro
Seminario. L'argomento è di sua scelta
e saremmo liettissimi di pubblicare
il testo sui nostri Rendiconti.

Naturalmente, tutte le sue spese di

Viaggio e soggiorno saranno a nostro carico.

Per la conferenza Le sarà offerto un onore
orario di L. 20000 (un po' modesto, in ve-
rità, ma non si può far di più!).

Sono molto lieto di aver potuto fare
la Sua conoscenza, a Napoli, e mi augu-
ro che Lei possa accettare il nostro invito.
Può tenere, se lo preferisce, la sua confe-
renza in inglese, o in francese.

Con i migliori saluti

Suo Luigi Amerio.

P.S. Colleghi delle Università di Torino e Genova
desidererebbero avere, anch'essi, una Sua confe-
renza e mi incaricano di trasmetterle il loro invito.

THE UNIVERSITY OF WESTERN ONTARIO
LONDON, CANADA



COMPUTING AND TABULATING CENTRE

December 13, 1960

Prof. Norbert Weiner,
Prof. of Mathematics,
Massachusetts Institute of Technology,
Cambridge, Mass.

Dear Prof. Weiner;

I have taken an interest in Cybernetics as a result of a Computing Seminar which I entitled "Similarities and Dissimilarities between Computing, Brain Physiology, and Symbolic Logic". The title was intentionally vague; nevertheless the seminar resulted in some excellent discussion between a Psychologist, a physiologist and a Computer. One could sum up the matter which was discussed by saying that to date we have emphasized what Cybernetics is not. I am now in the more difficult position which you have faced, of trying to describe what it is.

I have two problems: the intellectual one of definition which I welcome as a sign of life in an exploding science, and the more serious one of the lack of appreciation in the University.

For the latter as much as the former, I am therefore extending an invitation to you to give a lecture on Cybernetics at this University or if possible, two lectures, one of a technical and one of non-technical nature. The Computing Centre which I direct has been operating for a year but we are already active in Numerical Analysis, our interests being Matrix Error Analysis and Rational Approximations. I believe that your presence would be a great help in bringing us into active contact with the speculative and practical aspects of Cybernetics.

Yours truly,

John F. Hart

Dr. J. F. Hart
Chairman, Computer committee

JFH/em

I have asked him to specify dates etc.

Eve R. Hart

163 Via Manzoni, Naples, Italy
December 13, 1960

Prof. Martin Greenberger
Lecture Series Chairman
School of Industrial Management
M.I.T.
50 Memorial Drive
Cambridge, Mass.
U.S.A.

Dear Professor Greenberger:

This is in answer to your letter of December 2, in which you ask me to be one of the discussants for one of the sessions of the Centennial Lecture Series. I am prepared to do what I can provided it does not require too much paper work on my part. I expect to be back at Tech for the second term when we can discuss this further.

With best wishes, I remain,

sincerely,

of the backlog

163 Via Manzoni, Naples, Italy
December 13, 1960

Dr. Bradford Hadnot
Chairman, Division of Mathematics
The New York Academy of Sciences
2 East 63rd Street
New York 21, N.Y.
U. S. A.

Dear Dr. Hadnot:

Thank you very much for your kind letter of November 21, in which you ask me to speak at one of your divisional meetings on a research topic of general mathematical interest. I very much wish it were possible for me to accept, but my program for the coming year is full already, not to speak of the backlog of work awaiting me upon my return to M.I.T. early in February next year.

Thank you for the honor of asking me. With best wishes, I am,

sincerely,



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Specialist, UCLA, Assoc. Coordinator

December 14, 1960

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DEPUTY CHIEF OF STAFF -
DEVELOPMENT

Dr. Norbert Wiener
163 Via Manzoni
Naples, Italy

Dear Dr. Wiener:

The Department of Engineering of the University of California, Los Angeles, is planning a six weeks' course entitled "Modern Engineering for Engineering Executives." This course is to be conducted during the period June 12 to July 21, 1961 at Ojai Valley Inn near Ventura, California. It is anticipated that it will continue year after year if this first program proves successful. The purpose of the course is to up-date Engineering Executives who have been out of school for twenty to twenty-five years, and the nature of the jobs they have been handling in industry have precluded any planned post-graduate education. The men in general have worked up to a position of executive responsibility, and as such are now being called upon to make decisions involving far more complex systems than those with which they have been concerned previously.

The enclosed booklet may be regarded as a preliminary summary of our plans at this stage. A more complete description of the program with an underlying discussion of the philosophy involved, is being prepared. A tentative academic curriculum is described on the color-chart enclosed as a final page in this booklet. It is planned to further expand this instruction by an evening lecture one night each week, presented by a recognized authority in a particular engineering field. It gives me great pleasure to invite you to participate as such a lecturer on the subject of "Cybernetics" or "Control and Communication In The Animal and The Machine," as in the title of your book. I feel that this subject is a necessary part of our course, and that your presentation will be most rewarding to our participants.

I had selected the date of Wednesday evening, July 12, 1961, for your particular offering. On checking with Harry Tallman in Physical Sciences Extension, as to your availability, I find

December 14, 1960

that you are scheduled to give a two-week short course at U.C.L.A. from July 17 to 28th. July 12 would be the Wednesday before, and might fit in very nicely before the two-week course. I am sure you will enjoy the informal atmosphere at Ojai Valley Inn and Country Club, and you might wish to continue being there for the remainder of the week before reporting to U.C.L.A. If you would prefer, we could schedule your talk for Thursday or Friday evening, instead of Wednesday. If you would rather have a daytime assignment, we would be glad to arrange accordingly.

The Ojai Valley Inn and Country Club is located 14 miles inland from Ventura, easily accessible by car from U.C.L.A. ($1\frac{1}{2}$ hours) or from Santa Barbara in 45 minutes. We would anticipate meeting you at any place you wish, and providing transportation as you might desire. Mrs. Wiener is most cordially invited to accompany you, and I am sure you will both find the Ojai environment to be most enjoyable.

We have made arrangements which will permit us to pay you as follows:

- (1) Honorarium for lecture (1 hour) \$200.00
- (2) Living expenses, room and meals for one day - all first-class accommodations.
- (3) All travel costs to and from Ojai.
- (4) We are to enjoy special rate accommodations of \$15.00 per person, per day (room and meals) for our course personnel (double room occupancy). Any extra days you might wish to spend at Ojai would be at this nominal rate for you and Mrs. Wiener.

A meeting of the participating staff, together with the Industrial Advisory Committee and other prominent Engineers in Industry, was held recently and there resulted an interesting discussion concerning many areas of the course curriculum. A copy of the Summary of Comments and Discussion at this meeting is enclosed, and may be of interest in showing the general tone of the program. Many of our prospective instructors find it to have an exciting flavor, and an appealing challenge to one's teaching skill.

We sincerely hope your reply will be favorable, and we look forward with great pleasure to your participation on our

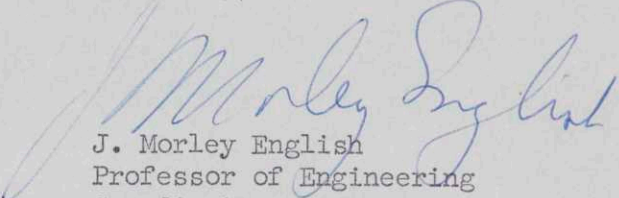
Dr. Norbert Wiener

-3-

December 14, 1960

instructional staff. Any suggestions that you might have for this ambitious program are most welcome.

Sincerely,



J. Morley English
Professor of Engineering
Coordinator

WCE/lk
Enclosures

[ans 12/23/60]

University of California
Los Angeles, California

November 7, 1960

"MODERN ENGINEERING FOR ENGINEERING EXECUTIVES"

SUBJECT: List of Attending Guests - Announcement Dinner for course in "Modern Engineering for Engineering Executives." Hotel Bel Air - West Los Angeles, California.

Industrial Advisory Committee

Arnold O. Beckman, President - Beckman Instruments, Inc. (Fullerton, California)
Louis G. Dunn, President - Space Technology Laboratories, Inc. (Los Angeles, California)
Irvan Mendenhall, President - Daniel, Mann, Johnson & Mendenhall (Los Angeles, California)
William S. Peterson, General Manager - Los Angeles Department of Water & Power
(Los Angeles, California)
Worrell F. Pruden, Chief Engineer - Columbia Geneva Steel (San Francisco, California)
Representative for Stephen M. Jenks, Executive Vice President Engineering & Research
United States Steel Corporation (Pittsburgh, Pennsylvania)
Allen E. Puckett, Vice President - Hughes Aircraft Company (Culver City, California)
Simon Ramo, Executive Vice President - Thompson-Ramo-Wooldridge (Canoga Park, California)
A. E. Raymond, Consultant - The RAND Corporation (Santa Monica, California)
R. H. Rice, President - Los Angeles Division, North American Aviation (Los Angeles, Calif.)
Royal Weller, Vice President Engineering - Stromberg Carlson Division, General Dynamics
Corporation (Rochester, New York)
Edward C. Wells, Vice President - Boeing Airplane Company (Seattle, Washington)
Lt. General R. C. Wilson, U.S.A.F., Deputy Chief of Staff Development (Washington D. C.)

Chancellor's Office

Franklin D. Murphy, Chancellor, U.C.L.A. Administration Building
William G. Young, Vice Chancellor, U.C.L.A. Administration Building

Dean's Office - Department of Engineering

L. M. K. Boelter, Dean, College of Engineering

Dean's Office and Department of University Extension

Paul H. Sheats, Dean, University Extension
Abbott Kaplan, Associate Dean, University Extension
Elwin V. Svenson, Associate Director, University Extension
Francis E. Blacet, Divisional Dean, Physical Sciences

Faculty Advisory Committee

J. Morley English, Professor of Engineering, Course Coordinator
W. Clare Ennis, Associate Extension Specialist, Associate Course Coordinator

Morris Asimow, Professor of Engineering
John C. Dillon, Head, Engineering Extension
Magnus R. Hestenes, Professor of Mathematics
Thomas E. Hicks, Professor of Engineering and Director of Nuclear Reactor Laboratory
John H. Lyman, Associate Professor of Engineering
Russell R. O'Neill, Assistant Dean, Professor of Engineering

Additional Advisors - U.C.L.A.

George W. Brown, Director - Western Data Processing Center; Professor of
Business Administration and Professor of Engineering
Richard Haase, Lecturer in Engineering and Associate Specialist, Engineering Extension
Sam Houston, Assistant Head - Engineering Extension

Instructional Staff

Richard Bellman, Mathematician - The RAND Corporation
W. D. Hershberger, Professor of Engineering - University of California, Los Angeles
Neil H. Jacoby, Dean, School of Business Administration & Graduate School of
Business Administration - University of California, Los Angeles
Robert Kalaba, Mathematician - The RAND Corporation
Willard F. Libby, Professor of Chemistry - University of California, Los Angeles
Raymond M. Redheffer, Associate Professor of Mathematics - University of California
Los Angeles
Myron Tribus, Professor of Engineering - University of California, Los Angeles

Extension Publicity Writer

Paul Simqu - Publicity Information Writer - University of California, Los Angeles

Ojai Valley Inn and Country Club

William G. Briggs, Managing Director

Corporation Executives - Southern California Area (Selected List)

- K. G. Beyer, Chief of Educational Services - Convair Pomona (Pomona, California)
 Representative for Rear Admiral Charles F. Horne, U.S.N. Retired, Vice President
 and Division Manager, Convair Pomona.
- L. A. Carter, Vice President & General Manager - Douglas Aircraft Co., Inc.
 (Santa Monica, California)
- Milton U. Clauser, President - Clauser Technology Corporation (Torrance, California)
- Robert Fallon, Manager of Salary Personnel - Aeronutronic Division, Ford Motor Company
 (Newport Beach, California) Representative for Gerald J. Lynch, Vice President
 and General Manager - Aeronutronic Division, Ford Motor Company.
- M. O. Kappler, President - System Development Corporation (Santa Monica, California)
- M. P. Klick, Chief Engineer - Consolidated Western Steel (Los Angeles, California)
 Representative for C. W. Lee, President - Consolidated Western Steel Division, United
 States Steel Corporation.
- Arnold D. Larson, Educational Program Director - Librascope, Division General Precision
 (Glendale, California) Representative for William E. Bratton, President
 Librascope, Division of General Precision, Inc.
- J. F. Manildi, General Manager - Thompson-Ramo-Wooldridge, Computers (Beverly Hills, Calif.)
- Fred T. Miller, Vice President & General Manager - Borg-Warner Controls Division,
 Borg-Warner Corporation (Santa Ana, California)
- Rear Admiral Jack P. Monroe, U.S. Navy, Commander Pacific Missile Range (Point Mugu, Calif.)
- L. E. Root, Group Vice President - Missiles Electronics - Lockheed Aircraft Corporation
 (Burbank, California)

"MODERN ENGINEERING FOR ENGINEERING EXECUTIVES"

SUMMARY OF COMMENTS AND DISCUSSION

AT DINNER OF ADVISORY COMMITTEE, NOVEMBER 7, 1960

Professor J. Morley English, Course Coordinator, explained the proposed Academic Content of the course, utilizing chart displays of the various areas of study for the six weeks' program (copy of this chart is attached). A discussion followed in which various persons present indicated their interpretation of the program and offered comments and suggestions for improvement. This advice was desired and appreciated in order to help in planning the course.

Dr. Bellman expressed the opinion that "Research" was the fundamental word for the material to be studied and that Engineering Executives must, above all, have an understanding of the meaning of the term and an appreciation of its importance in his own activity. He defended the course plan to up-date engineers in technical methods and knowledge. He pointed out that Engineering Executives are in effect "scientific critics" who must know the basic ideas of science, in order to pass judgement on work being done under them. (This, in the same way that a critic of one of the arts, might not himself be a performer, but could still be perfectly capable of evaluating an artist's rendition.)

Professor George W. Brown raised the question, "Can you be an expert and still be a manager?" The very fact that the executive is called upon to make decisions over broad ranges of subject area, do not permit him the time needed for concentrating in a specialized field. Yet he must be informed on technical matters in order to make good decisions. He suggested that some of the discussion time of the course be devoted to the question, "What is proper allocation of executive time to purely technical problems?"

It was pointed out that the Engineering Executive's duties and problems are heavily slanted toward the managerial field and that he cannot be expected to be an expert in all technical fields. However, it was further noted that Engineering Executives have to deal with Specialist Engineers who are closer to technical problems. If their understanding of technical aspects of the problem is too weak, they are completely at the mercy of their subordinates. "Never have so few been at the mercy of so many."

The Decision Theory studies and their applications were discussed at some length and there was some misunderstanding as to proper balance of this subject in the program. It was pointed out, however, that this field of study would actually invade several other areas of attention since the whole concept of design and related topics actually involves Decision Theory. Such a background combined with operation of computers is important in the design of large scale systems. A "study of large

scale systems" was construed as a good program title. The evaluation of the use of computers in this field was considered important. Nearly everything in Research and Development is a "first time deal" and, therefore, the opportunities are many for making use of Decision Theory, particularly on large scale matters.

Transmittal of information--communication with engineers and laymen--came in for considerable discussion. It was quite agreed that a new language was needed in which these fundamentals of Science, Technology and Engineering Administration were verbalized and capable of being transmitted and understood. This was apparent even from the misunderstandings occurring at this dinner meeting. It appears that industry as a whole needs to reorient its basic concepts and set up meaningful ways of expressing the fundamentals and new techniques of design methodology. Only then can all engineers communicate efficiently with each other. And only then does it become feasible to tackle the problem of verbalistic interpretation of technology to the layman--the customer.

Some criticism was made that the course failed to consider attention to managerial problems which are most frequently encountered by the Senior Engineer Executive. It was pointed out, however, that the course is to be a "technical orientation" and such studies in Industrial Management would have to be given as a separate course by the School of Business Administration. It was further noted that there would be ample opportunity for individual and small group discussions during the course when problems of management might be expected to come up and be adequately discussed without faculty supervision.

An opinion was expressed that smaller companies (less prominent in Engineering) might be expected to benefit most from this course--since the larger companies may have Senior Engineers already adequately informed in "Modern Engineering." This would be for companies in a narrow field of Engineering where technological change had happened too fast for them to grasp. In answer to this it was pointed out that the course needed to be within reach of all companies, if we are to progress as a whole society. Engineering Executives in large companies may seriously need technical reorientation to modern concepts, and this may be manifested in their inability to recognize the decisions of their subordinate engineers and the impact of such decisions on the company and its product. It is important to have such decision making in progress lower down in the organization, but the Senior Executive must understand these lower level decisions thoroughly to fit them into his own higher level decisions. It was generally agreed that people in the frontiers of Research and Development would benefit highly by the course.

It appeared that the scope of the course was somewhat ambitious in respect to the volume and diversification of material to be covered. However, since six weeks are considered to be a maximum time limit for the course and since it appears important not to overlook any of the fields of interest indicated, then the alternative is skillful teaching--a very well planned analysis of what is to be covered, in proper detail, in proper language, to make best use of the time allocated. Evening study and discussion groups and individual help from teaching assistants, are all expected to make clear to the participant the subject matter covered and how he can apply it when he returns to his job. Ideas gained from association with individuals from many different companies is expected to be highly beneficial.

San Juan San Ramón Alajuela
Costa Rica América Central

15 de diciembre de 1960

Doctor

Norbert Wiener

Catedrático del Instituto

Tecnológico de Massachusetts

Boston Estados Unidos de A.

Estado de Massachusetts

Ilustre doctor:

He leído un artículo en la revista "Lo Me-
jor de Catholic Digest" de Dic de 1953 re-
ferente al Cerebro Electrónico que es un lo-
go de la Cibernética, nueva ciencia que
Ud. ha popularizado con su libro Ciber-
netics que Ud. publicó en lengua inglesa
y que me imagino que ahora exista tra-
ducción en lengua española pues su li-
bro había editado por 1ª vez en 1948.
Como Ud. es un especialista

En este campo del saber humano re-
curro a Ud. en solicitud de informa-
ción sobre los cerebros electrónicos
pues soy maestro de escuela y tengo
interés en conocer los detalles de un
Robot Electrónico que enseña ma-
temáticas que según parece se ha in-
ventado en Inglaterra; en vista de ese
informe que dió la Radio de mi país.
escribí al Ministerio de Educación de la
Gran Bretaña y ellos me contestaron que
no tenían noticia oficial del invento.
Ahora bien doctor quiero leer su libro y
saber si es posible que exista tal apar-
to para estudiar y enseñar matemáticas;
a mí como educador me interesan los
idionmas y los matemáticos y me gusta-
ría adquirir para mi uso tal Robot
siempre que pueda comprarlo. Si alguien
información al respecto se la agradeceré.
afectuosamente le saluda
Profesor Rafael Angel González Chávez

[and 3/31/61]

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CHICAGO 49, ILL.
PLAZA 2-5748

PLEASE REFER TO
OUR FILE NO.

December 15, 1960

Mr. Norbert Wiener
Massachusetts Institute of Technology
Boston, Mass.

Dear Sir:

The Chicago Section of the Instrument Society of America, being a group of people engaged in the field of automatic control, data logging and computer systems, has asked me to convey to your their interest in your field and you, as the father of cybernetics. Although the vast majority of our members, at the present time, do not approach problems of the complexity with which you deal, the problems of automation are becoming more complex and we find ourselves striving harder and harder to keep up with the changes.

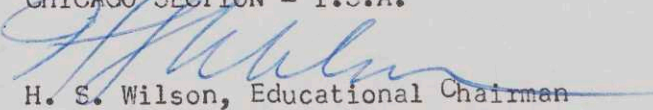
It is our belief that a lecture by you, in your field, would be of general interest to the Chicago Section and also to all the other engineering societies in the Chicago area. Therefore I have been commissioned by our Governing Board to write to you to respectfully request under what conditions you would consent to come to Chicago and address our group. Tentative date for this meeting would be October 1961, however it could be changed to meet your convenience. I am sure that any request that you have to make concerning conditions of your lecturing before our group will be happily met by the Instrument Society.

I, personally, am very happy to undertake this commission since I have long been an admirer of yours and a reader of your books and articles.

Communication should be addressed to me as Chairman of the Educational Division of the Instrument Society of America, care of Moore Products Company, 1809 East 71 St., Chicago 49, Illinois.

Yours very truly,

CHICAGO SECTION - I.S.A.


H. S. Wilson, Educational Chairman

HSW/ec

[ans 1/7/61]



THE UNIVERSITY OF OKLAHOMA
NORMAN · OKLAHOMA

December 16, 1960

*Answered:
no*

Professor Norbert Wiener
c/o American Express
Stockholm, Sweden

Dear Professor Wiener:

I wrote to you last summer at MIT, but must presume that you did not receive the letter. Miss Goodwin tells me that you are expected back at MIT in January, so I am writing to you both at Stockholm and MIT.

I think you will be interested in a project we plan at the University of Oklahoma. We expect to hold "An Interdisciplinary Symposium in Communication Theory" on our campus in October, 1961. The Society for the Investigation of Human Ecology has provided support for the initial planning. Dr. Henry Riecken, Head of the Social Sciences Division, National Science Foundation, has encouraged us to submit a formal request for support before February 1. He promises to let us know their disposition of the request by May 1.

A preliminary outline of the program is enclosed. We plan to invite fifteen to twenty participants, each of whom has made an important contribution to research in speech, language, and communication processes, and who collectively represent a broad range of the arts and sciences.

The purpose of this letter is to secure your judgment of the possible value of such a symposium, your suggestions concerning the planning, and especially an expression of your interest in participation.

We have received preliminary acceptances from Kenneth Pike, Wilbur Schramm, T. C. Schneirla, Meyer Abrams, Karl Wallace, Wendell Johnson, Anatol Rapoport, and Roger Brown. I expect to hear soon

Professor Norbert Wiener
Page 2
December 16, 1960

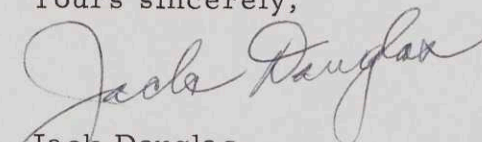
from other invited participants, including Naom Chomsky, Suzanne Langer, Charles Osgood, Jurgen Ruesch, Carl Hovland, and Leon Festinger. The response has been excellent so far.

I am asking each participant to include in his paper brief discussions of the current state of research in his special field and the directions which he thinks future research should take, and to spend somewhat more time on a theoretical formulation designed to integrate a substantial body of data in the participant's particular field as well as pertinent data from cognate fields.

Some weeks before the symposium, we will request a copy of his paper from each participant for duplication and distribution to all the other participants. At the symposium each speaker will, instead of reading his paper, react to the other papers as they relate to his own and submit to questions from the others. We believe that this procedure will stimulate superior discussion. These discussions will be transcribed and edited, and the papers and the discussions will be published in a book.

Dr. Riecken has said that his Foundation will review our proposal on two major bases, (1) The identity of the participants and (2) The content of the papers as to advancement of knowledge and unity of theme. It seems likely that we will meet the first criterion, and I am hopeful in regard to the second. Riecken suggests that précis or abstracts would be helpful to the reviewers. He and I both recognize the somewhat tenuous basis for requesting such précis from participants before financial commitments have been made, but the odds for financial support will increase if we can submit several précis with the proposal before February 1. I should like to know whether you might be interested in participating in the symposium as well as any suggestions you may have concerning the structure and procedures of the symposium. I would greatly appreciate hearing from you as soon as possible so that the final list of participants can be submitted with the proposal to the National Science Foundation. If you feel an interest in participation, I should like to have a brief abstract of your paper by January 15. One paragraph will be sufficient, but a longer length may be used, as you wish. I hope very much that you will want to participate and will find it possible.

Yours sincerely,



Jack Douglas
Professor

JD:ab

Enclosure

An Interdisciplinary Symposium in Communication Theory

Prospectus of a symposium planned at the University of Oklahoma for October, 1961, with subsequent publication in book form

Preface

None of man's attributes has proved more unique among earthly creatures than his capacity for symbolic interaction, and no other capacity, perhaps, will prove more significant to the understanding of his condition or the achievement of his potential. It is not surprising, therefore, that the study of many aspects of language, speech, communication, and symbolic processes should bear the active interest it now commands in many disparate fields of investigation. Perhaps no other object of study has received so much of the collective attention of scholars in the major areas of learning over the centuries. The humanities, the social sciences, and the physical sciences have all made substantial contributions to the understanding of human communication. New contributions have accumulated rapidly during this century, particularly since World War II, but the chief contributors and their work remain even yet severely isolated from each other. Since comprehensive knowledge of communication processes will not be consummated without recourse to scholarly resources throughout the arts and sciences, the need for increased interdisciplinary communication about communication research is manifest.

Purpose

The proposed symposium will be unique among scholarly symposia in its broad range of participation by scholars from all sections of the research frontier in communication processes. Its purpose is to secure the sharing of concepts, theories, and findings which can reveal the gaps and discrepancies, order and relate the disparate findings, open up new directions of fruitful research, and, hopefully, contribute to a more adequate theory of communication for interdisciplinary application. The areas of need for application of more adequate knowledge about communication have become

more prominent and pressing: in the classroom, the family, the international conference table, political campaigns, industrial relations, the operation of the mass media. Even more important than these practical needs, possibly, is the contribution which the study of symbolic processes may make to the understanding of human nature itself.

Plan

Scholars regarded by their colleagues as major contributors to knowledge of some aspect of human verbal communication have been invited to submit papers, and the response has been positive. A preliminary list of contributors and topics is given below. Each participant will phrase his own topic and develop it according to his own conception, but is expected to offer a theoretical formulation useful to the integration of a substantial body of data, particularly the integration of bodies of data which come from separate areas of investigation.

Papers will be submitted in advance of the meeting so that copies can be made and distributed to all participants. At the meeting, instead of reading his paper, each participant will comment on the other papers as they relate to his own. Questions and discussion will follow each such commentary, and the whole will be transcribed and edited for publication.

Preliminary List of Topics and Speakers

(Topics are broad and tentative. Speakers will formulate their own topics for the final program. Speakers marked by an asterisk have indicated a desire to participate.)

A. Communication as system and structure -- syntactics

*T. C. Schneirla, American Museum of Natural History,
"A Phyletic Consideration of Communication Processes"

Rulon Wells, Yale University, "Semiotic, or the Theory
of Signs"

Norbert Wiener, Massachusetts Institute of Technology,
"Cybernetics in Human Society"

Naom Chomsky, Massachusetts Institute of Technology,
"Information Theory and Human Communication"

Freeman Twadell, Department of Health, Education, and
Welfare, "Linguistic Systems"

*Kenneth Pike, University of Michigan, "Linguistic Struc-
ture and Human Behavior"

B. Communication as symbolic process -- semantics

Suzanne Langer, Connecticut College, "The Symbolic
Transformation of Experience"

*Meyer Abrams, Cornell University, "Poetic"

Charles Osgood, University of Illinois, "The Measurement
of Meaning"

*Roger Brown, Massachusetts Institute of Technology,
"Grammatical Categories as Cognitive Function"

*Wendell Johnson, State University of Iowa, "The Process
of Abstracting and Communicative Disorders"

Jurgen Ruesch, University of California, "Communication
Process and Personality Structure"

C. Communication as social process -- pragmatics

*Karl Wallace, University of Illinois, "Rhetoric"

Leon Festinger, Stanford University, "Communication as
Group Process"

*Anatol Rapoport, University of Michigan, "Group Communi-
cation in Co-operative and/or Competitive Tasks"

*Muzafer Sherif, University of Oklahoma, "Communication
Between Groups"

*Wilbur Schramm, Stanford University, "Some Effects of the
Mass Media"



THE UNIVERSITY OF OKLAHOMA

NORMAN · OKLAHOMA

December 16, 1960

Professor Norbert Wiener
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Professor Wiener:

I wrote to you last summer at MIT, but must presume that you did not receive the letter. Miss Goodwin tells me that you are expected back at MIT in January, so I am writing to you both at Stockholm and MIT.

I think you will be interested in a project we plan at the University of Oklahoma. We expect to hold "An Interdisciplinary Symposium in Communication Theory" on our campus in October, 1961. The Society for the Investigation of Human Ecology has provided support for the initial planning. Dr. Henry Riecken, Head of the Social Sciences Division, National Science Foundation, has encouraged us to submit a formal request for support before February 1. He promises to let us know their disposition of the request by May 1.

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Professor Norbert Wiener

Page 2

December 16, 1960

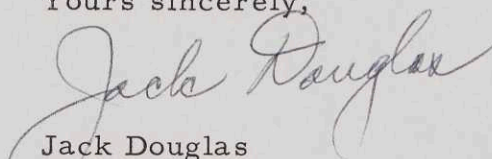
from other invited participants, including Naom Chomsky, Suzanne Langer, Charles Osgood, Jurgen Ruesch, Carl Hovland, and Leon Festinger. The response has been excellent so far.

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Yours sincerely,


Jack Douglas
Professor

JD:ab
Enclosure

[ans 1/7/61]

IOWA STATE UNIVERSITY

of Science and Technology



AMES, IOWA

Department of Physics

December 16, 1960

Professor Norbert Wiener
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Professor Wiener:

I am writing you to tell you about the John Franklin Carlson lectures at Iowa State University, and to invite you to give the Carlson Lecture for 1961.

Frank Carlson was a theoretical physicist who, among other things, did some fundamental work with J. R. Oppenheimer on cosmic rays, and took an active part in the M. I. T. Radiation Laboratory during the war. A man of deep understanding and broad interests, Dr. Carlson joined the physics department at Iowa State after the war. At the time of his death in 1954, Dr. Carlson's friends established the John Franklin Carlson Lecture Fund in order to bring to Iowa State University each year an outstanding scholar to lecture on some aspect of physical science, its philosophical implications, and its relation to human affairs.

We have been very fortunate in having for previous lecturers in this series J. R. Oppenheimer, P. W. Bridgman, Niels Bohr and George Uhlenbeck.

No special date has been established for these lectures, this being arranged at the speaker's convenience. There would be an honorarium of \$300.00 in lieu of expenses for the one lecture.

It would be an honor to Frank Carlson if you would give the fifth Carlson Lecture, and I sincerely hope that it will be possible for you to accept this invitation.

Sincerely yours,

J. M. Keller, Chairman
of the
John Franklin Carlson Lecture Fund

eah

[ans 1/7/61]

ALI IRTEM

P. K. 685

ISTANBUL

Tel: 48 37 04

.....

Istanbul, December 18, 1960

Mr. Norbert Wiener
Professor of Mathematics
The Massachusetts Institute
of Technology
U.S.A.

Dear Professor,

On occasion of the new edition of
your world famous book and as a sign
of the widespread of your science, Cybernetics,
may I send you a reprint of my little
turkish paper "Sibernetik", which is merely
a short general view of Cybernetics, in a
way.

This article is issued as a part
of the book "Physiology of the Nervous
System" by Associate Prof. Dr. Songar,
from the University of Istanbul.

With my high admiration and
best regards, I am,

yours very truly

Ali İrtem

P.S. - Enclosed you will find
also a reprint of an old
turkish seal, or sealons
greeting.

Milano 19-12-1960

Dear Professor Wiener,

I am a physicist and I have been working for the last four months in the Centro di Cibernetica e Attività Linguistiche in Milano.

The work concerns some problems involved in the "recognition" of figures by a perceptive machine. I am also interested in physio-psychological processes and some logical structures.

I wrote to you almost a year ago, and you were kind enough to suggest an appointment in Italy. I would be very grateful to you if you could confirm a possible meeting, and suggest a date.

Yours sincerely

(Salvatore Incarbone)

Salvatore Incarbone
Via Sopuga 52, Milano

answered

[ans 12/29/60]



Radio Free Europe

TWO PARK AVENUE, NEW YORK 16, N.Y.

Division of the

Free Europe Committee, Inc.

Telephone: LExington 2-8900

December 20, 1960

Norbert Wiener
c/o M.I.T.
Cambridge 39, Mass.

Dear Dr. Wiener:

As you may know, Radio Free Europe broadcasts to Eastern and Central Europe a continuous flow of objective information about the western world so that the people of that Communist-dominated area may have access to the truth in forming their opinions. In recent months we have received information from Poland which gives us reason to believe that, due to Communist propaganda, some confusion exists in the minds of the Polish people regarding America's actual scientific and technological achievements.

Therefore, we have initiated a special series of programs designed to familiarize our listeners with the facts concerning American progress in the fields of science and technology during the last decade. In carrying out that project, we are soliciting the cooperation of leading American authorities in those fields.

We have already interviewed several prominent scientists in Washington, D.C. such as Dr. George Kistiakowsky, Dr. T.K. Glennan and others. Now we are planning to continue that series of interviews with a group of leading scientists working in Cambridge, Massachusetts.

We would be most grateful if you would agree to receive during the second week of January our Senior Polish Editor, Mr. S. Gacki, for a short interview on the state of science in the U.S. today, with the emphasis on your own field of activities. We would prefer to tape-record the interview at your office or home, so that your actual words could be broadcast to Poland and eventually to the other countries behind the Iron Curtain, but if you would rather prefer that the interview take the form of an unrecorded, informal conversation, that of course, would suffice.

Anticipating your reply and thanking you in advance for your kind cooperation, I am,

Sincerely yours,

Joseph L. Ranft
Program Manager
Radio Free Europe

JLR:an

[ans 1/10/61]

The Technology Press
Massachusetts Institute of
Technology
Cambridge 39, Massachusetts
December 21, 1960

Professor Norbert Wiener
Universita di Napoli
Scuola di Perfezionamento in Fisica Teorica e Nucleare
Mostra d'Oltremare, Pad. 19
Naples, Italy

Dear Professor Wiener:

Thanks for your letter of December 15. Work is proceeding with the corrected pages of the old Cybernetics, which present no real problems, and with the support of your recent letter I shall get to work on the supplementary chapters at once, and try to find an acceptable way of publishing them more or less as written, with perhaps some minor toning down of a sentence or two to meet some objections. Professor Lee went over the new chapters once last summer, and approved them. I shall try to collect the various opinions about what ought to be done, and go over them once more with Lee, and also with Bose and with Tobey, and do the best I can to expedite things.

By the time you get back in February we ought to have the bulk of the book in pages for your approval, and perhaps the supplementary chapters in galleys. Actually the extra chapters are not very long, and can be set in type very quickly. It will be good to have you back so that we can work more closely on these problems.

M. Pierre Beres of Hermann et Cie. was here the other day and inquired about the second edition of Cybernetics. I explained the whole situation to him, and said that since he had published his own corrected edition without our name on the title page, in violation of the agreement, we were planning to publish our own independent corrected and enlarged edition, without his name on the title page. M. Beres said that he had not known of the earlier agreement at all. I think we parted on good terms, and I think it is now understood that the second French edition was an inadvertent violation of the agreement, and that we shall publish the second edition without paying royalties to Hermann, but that we do not wish to rely on the letter of the law and will try to do the right thing by Hermann. I think we can work out some arrangement to let him handle our edition in parts of Europe, or let him have one or more translations (with royalties payable to you, of course). If you happen to run into him, please do not make any agreements with him, but let us make all the arrangements from here. I have already heard from a German publisher who had talked with you about German rights to our edition, but I am holding him off until we have completed our arrangements with Wiley and with Hermann. In any case you may rest assured that you will get full standard royalties (15% of the list on domestic sales, and 7.1/2% on foreign sales) on all sales from the beginning. We are now thinking of a price of around \$6.00.

FOLD SIDES OVER AND THEN FOLD BOTTOM UP
MOISTEN FLAP WELL AND APPLY PRESSURE TO SEAL

Your house on Bearcamp Road is still there, almost buried in snow, even before Christmas. They had a foot of snow a week ago, and today it has snowed another foot, I hear. I imagine Naples is quite different. I hope you and Mrs. Wiener have a happy holiday season in Italy. It will be good to have you both back.

Merry Christmas

Lynwood Bryant

Lynwood Bryant
Director

SECOND FOLD



The Technology Press
Massachusetts Institute of
Technology,
Cambridge 39, Mass. USA

Professor Norbert Wiener
Universita di Napoli
Scuola di Perfezionamento in Fisica Teorica
e Nucleare
Mostra d'Oltremare, Pad. 19
Naples. I T A L Y

AIR LETTER • AÉROGRAMME • PAR AVION

FIRST FOLD



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December 22, 1960

Dr. Norbert Wiener
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Dr. Wiener:

I have been asked by the Nominations Committee of this organization to inquire whether you would become a national sponsor of the National Committee for a Sane Nuclear Policy. Since you are a sponsor of the Greater Boston Sane Committee, I need not tell you of our general policy and program.

The duties of a national sponsor are minimal, but you would be kept informed of the policies and program of the National Committee and will be consulted occasionally on special problems.

We would cherish your cooperation in this capacity with SANE. I enclose some material which tells our purposes and program in more detail. A list of the existing national sponsors is found on the back of this letterhead.

Sincerely yours,

Homer A. Jack,
Executive Director

HAJ/bk

Enclosures

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163 Via Manzoni, Naples, Italy
December 22, 1960

Mr. Douglas Deane Hall
Chairman, Symposium Committee
Student Union, Newcomb Hall
University of Virginia
Charlottesville, Virginia, U.S.A.

Dear Mr. Hall:

Your kind letter of December 2, was forwarded to me here in Naples, hence the delay in the answer. However much I would like to be able to accept your invitation to be one of the lecturers at your symposium, I find that previous commitments as well as the backlog of work awaiting me upon my return to M.I.T. in February will make it impossible to add another lecture to my schedule. I am sure you will understand.

Thank you again for inviting me. I remain, with best wishes for a successful program,

sincerely,

163 Via Manzoni, Naples, Italy
December 22, 1960

Dr. Ebbe Curtis Hoff
Dean, School of Graduate Studies
Medical College of Virginia
Richmond, Virginia
U.S.A.

Dear Dr. Hoff:

Thank you very much for your kind letter of December 11, in which you honor me by the invitation to give a lecture in your seat at the Medical College of Virginia. Your letter was forwarded to me here in Naples, hence the delay in answering.

However much I would like to accept the invitation, I am afraid that previous engagements and the backlog awaiting me upon my return to M.I.Y. in February will make it inadvisable for me to add to my commitments. I am sure you will understand my position.

With best wishes for the success of your interesting program of lectures, I remain,

sincerely

Rudolf Steiner

Lecture delivered in Berlin, December 23, 1904

An extract from the third installment of the lecture as published serially.

.....Jetzt werden Sie verstehen, dass in gewissen Zeiten es notwendig sein kann, dass ein Verständnis für solche Dinge geweckt wird. Wir gehen eine Zeit entgegen, in der, wie ich neulich schon andeutete, das Verständnis bis ans Atom herankommen wird. Man wird begreifen - auch in der populären Anschauung -, dass das Atom nichts anderes ist als geronnene Elektrizität - der Gedanke selbst ist aus der gleichen Substanz. Man wird in der Tat soweit kommen, ~~ah~~ die fünfte Kulturperiode zu Ende geht, dass man imstande sein wird, bis ins Atom herein zu wirken. Wenn man nur erst die Stofflichkeit zwischen dem Gedanken und dem Atom begreifen kann, so wird man auch bald das Hineinwirken ins Atom verstehen, und nichts wird mehr für gewisse Wirkungsarten verschlossen sein: Ich wird hier stehen und un bemerkt auf einen Knopf, den ich in der Tasche trage, drücken, um einen Gegenstand in weiter Ferne - sagen wir im Hamburg- in die Luft zu springen. So wie Sie jetzt schon drahtlostelegraphieren können, indem Sie hier eine Wellenbewegung hervorbringen und an einer anderen bestimmten Stelle in bestimmter Weise zum Ausdruck bringen, so wird auch das oben Angedeutete möglich sein. Das wird in dem Momente eintreten können, wo die okkulte Wahrheit, das Gedanke und Atom aus desselben Substanz bestehen, im praktischen Leben ausgeführt sein wird.

un
Es ist möglich, sich auszudenken, was in einem solchen Falle geschehen kann, wenn die Menschheit dann nicht bis zur Selbstlosigkeit gelangt ist. Nur durch das Erringen der Selbstlosigkeit wird es möglich sein, die Menschheit vom Rande des Verderbens zurückzuhalten. Der Untergang unseres gegenwärtigen Zeitalters wird herbeigeführt durch den Mangel an Moralität. Die Lemurische Epoche ist durch Feuer zugrunde gegangen, die atlantische durch Wasser; unsere wird zugrunde gehen durch den Krieg Aller gegen Alle, das Böse; die Menschen werden sich selbst im gegenseitigen Kampf vernichten. Und es wird das Trostlose sein - trostloser als andere Untergangsarten -, das die Menschen selbst die Schuld daran tragen!

(A very long omission here*)

Wenn da nicht eine Veredelung der Sitten stattfindet, so muss das zu den brutalsten Dingen führen. Das wird auch so kommen, wie die Wasserkatastrophe für die Atlantier gekommen ist.

from Rev. W. W. W. W.
Anthroposophical Soc.
in America
Madison Ave, N. Y.

FACULTÉ
DES SCIENCES

MATHÉMATIQUES



UNIVERSITÉ DE MONTPELLIER

Montpellier, le 23 décembre 1960

M. le Professeur N. Wiener
c/o Prof. Caianiello
Université de Naples
Institut de Physique

NAPLES (Napoli)
Italie

Monsieur le Professeur,

Nous avons appris par M. E. Akutowicz, professeur associé de notre Université, votre présence en Italie. Si vous pouvez envisager un voyage en France, nous serions extrêmement heureux de vous recevoir dans notre département de mathématiques.

Je vous prie de croire, Monsieur le Professeur, à mes sentiments très respectueux.



J.-P. Kahane
Professeur à la Faculté des
Sciences de Montpellier.

*taken care of
by Akutowicz.*

163 Via Manzoni, Naples, Italy
December 23, 1960

Professor J. Morley English
Engineering Extension
University of California
Los Angeles 24, California
U. S. A.

Dear Professor English:

Thank you very much for your letter of December 14, in which you ask me to give a lecture during the last week of the course in "Modern Engineering For Engineering Executives". I wish very much that it were possible for me to fit this lecture in, but as my commitments stand at present, I will not arrive in California before the 15th of July. Therefore July 12 would not be possible for me.

With best wishes for the success of your very interesting program, I remain,

sincerely,

Prof. Wiener

23/12/1960

Mr. Craig Pease
3040 N. 2nd Street
Apt. 2L0
Phoenix, Arizona.

Dear Mr. Pease:

I am very much interested in the question of the Determinants of Consciousness and Identity in the Human Being. Of course I am far from being able to give a definite answer to these questions. It seems to me that the "I" is not so much an independent entity as the entire organization of the mind-brain system. This of course raises the difficulty of distinction between conscious and unconscious mental activity. It is clear that certain parts of our mental nervous action have an explicit level in memory, which we can reach at will and that other parts, while they deeply condition our memory, are by no means so freely accessible. These latter we call unconscious or subconscious.

In my opinion the distinction between these two levels or ranges of levels has been drawn much too sharply by the psychoanalyst. In visiting my own psychoanalyst I have found him pointedly uninterested in my reports of the not fully conscious thinking which takes part in my development of my own scientific work. Very often I go to bed with a problem still puzzling me greatly to the extent that the lack of a solution produces in me a definite emotional distress. During the night the problem comes back to me distorted in my dreams, at a time when I am very far from fully awake. Some time in the night a sense of relief comes over me and I lapse into a real deep sleep. On awaking in the morning I find some essential point in my work very much clarified and I can often proceed quite explicitly to a clean-cut solution. It is quite impossible for me to distinguish the conscious and the unconscious elements in the process by which I arrive at my result. In talking this over with my psychoanalyst he definitely refused to see any relation between this unconscious activity and the unconscious in the technical sense of the psychoanalyst. In this I think he was wrong and excessively dogmatic.

As to your second question on the nature of personal identity my answer, as far as it goes, is very similar. It seems to me that the question is an operational one. Those activities between which there is a clear transition and which act freely on one another, all belong to the same personality. In those curious cases of multiple personality which have come up ever since the fundamental work of Dr. Morton Prince there are various degrees of isolation and none interchangeable between different parts of the mental activity of the same human being. When these blocks of transition between these various phases of the mental activity belonging to the same physical body are sufficiently deep, we dignify the various parts of the mental activity with the name of separate personality. This is a relative matter and it is impossible to say decisively when this multiple personality finally ends and the single normal personality is resumed. In other words the proper way of conceiving these phenomena is as Dr. Prince did by describing what personal identity means.

You speak of the absence of personal identity in inanimate objects. Here I think you must draw a distinction. When the inanimate object is as highly organized as a computing machine or as one of the control devices used, let us say, in space rocket, then in different phases of its activity and when it is set to perform different problems it is quite reasonable to say that it has different or relatively different personalities. With the modern machines which learn by experience, as you can read in very interesting articles in the technical journal of the IBM, such machines do develop a personality of play which can change by experience. It is even possible to conceive problems of multiple personality arising with such machines.

~~Many thanks for asking me these questions. I shall be back in my usual office at MIT in some six or 7 weeks and shall be delighted to hear from you there and to keep in correspondence with you.~~

Sincerely yours,

Prof. N. Wiener

NW: amh

23/12/1960

Mr. Craig Pease
3040 N. 2nd Street
Apt. 2L0
Phoenix, Arizona.

Dear Mr. Pease:

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As to your second question on the nature of personal identity my answer, as far as it goes, is very similar. It seems to me that the question is an operational one. Those activities between which there is a clear transition and which act freely on one another, all belong to the same personality. In those curious cases of multiple personality which have come up ever since the fundamental work of Dr. Morton Prince there are various degrees of isolation and none interchangeable between different parts of the mental activity of the same human being. When these blocks of transition between these various phases of the mental activity belonging to the same physical body are sufficiently deep, we dignify the various parts of the mental activity with the name of separate personality. This is a relative matter and it is impossible to say decisively when this multiple personality finally ends and the single normal personality is resumed. In other words the proper way of conceiving these phenomena is as Dr. Prince did by describing what personal identity means.

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Many thanks for asking me these questions. I shall be back in my usual office at MIT in some six or 7 weeks and shall be delighted to hear from you there and to keep in correspondence with you.

Sincerely yours,

Prof. N. Wiener

NW: amh

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Many thanks for asking me these questions. I shall be back in my usual office at MIT in some six or 7 weeks and shall be delighted to hear from you there and to keep in correspondence with you.

Sincerely yours,

Robert Wiener

Prof. N. Wiener

NW: amh I hope 6 6 e . a s . g n 1 u p x h - 1 *
 u p l u h - u p v - 1 < . (to 6 e x
 eol

OMNIBUS

BIBLIOTECA MATEMATICA

VIA CARLO ALBERTO 10
UNIVERSITÀ DI TORINO

Torino (corso Francia 19 bis) 24 12 1960

Prof. Norbert Wiener
c.o. Istituto di Fisica teorica
Mostra d'Oltremare. Napoli

Dear Professor Wiener,

I have the pleasure to write to you in the name of the 2nd Group of Italian Seminars of Mathematics, which includes the Institutes of Mathematics of Milano, Torino, Genova and Pavia. I understand that you do not wish to have too many scientific engagements/However, I would like to ask you to give a lecture in some of the Seminars of our Group. I have been told by prof. Amerio that possibly you will give a lecture in the Seminar of Mathematics and Physics in Milano: we will be very grateful to you if you will accept to give a talk in Torino and Genova as well. Can we hope in an affirmative answer of yours ?

I thank you in advance. All my best regards.

Sincerely yours

Alessandro Terracini

(Prof. Alessandro Terracini)

answered.

[ans 12/29/60]

UNIVERSITY OF CALIFORNIA
LA JOLLA, CALIFORNIA

DEPARTMENT OF EARTH SCIENCES

27 December 1960

Professor Norbert Wiener
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

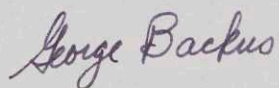
Dear Professor Wiener:

If any reprints of your paper "Generalized Harmonic Analysis," Acta Mathematica 55, 117-258 (1930) are still available, would you be so kind as to send me one, or better yet, two copies? The Institute of Geophysics of the University of California is trying to build a library on power spectra, and such a library is necessarily incomplete without this paper.

I have also written to Acta Mathematica for either the appropriate number of that journal or permission to make two photostats. If you are out of reprints and they are out of back issues and unwilling to permit reproduction, are there any other methods known to you for obtaining copies of the article? Any suggestions would be very much appreciated.

Thank you for your attention in this matter.

Yours truly,



George Backus
Associate Professor
of Mathematics

GB:GC

[ans 1/10/61]

From: Soriana Lebed
353 Ft. Washington Ave
New York 33, N. Y.

December 28, 1960
New York 33, N. Y.

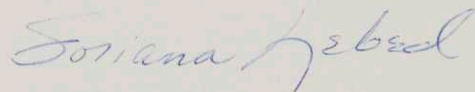
Doctor Norbert Wiener
Professor of Mathematics
Massachusetts Institute of Technology
Cambridge, Mass

Dear Doctor Wiener:

I am a freshman student at the University of Illinois, Champaign Urbana, Illinois. One of my instructors suggested Cybernetics as a topic of a research paper I am doing. I have read your book Human Use of Human Beings and would appreciate any assistance or advice you might be kind enough to offer.

Enclosed please find a self-addressed stamped envelope.

Yours truly,



(Soriana Lebed)

Encl.

[ans 2/17/61]

The Laboratory,
St. Andrew's Hospital, Northampton,
ENGLAND

29th December, 1960.

Prof. Daniel MAZIA,
Department of Zoology,
University of California,
BERKELEY 4, Calif., U.S.A.

Copy to : Prof. Norbert WIENER,
Dept. of Mathematics,
M.I.T., CAMBRIDGE, Massa.

Dear Dr. Mazia,

In amplification of my reply of 18th November to your outline and query of 10th November : If I am picturing your test-experiments set-up correctly, the most probable of my "seven predictions" of 16th March to manifest in such circumstances, (once you have gotten your impressed electro-magnetic field phasic at the right frequency), will be "No. 3". That is to say, a time lag, outside the normal range-of-variation, will develop between the appearance of the "left grand-daughter" cell and the appearance of the "right grand-daughter" cell, in each of the ripening ova. - This, because the daughter cell whose set of centrioles is in-phase with your impressed field will tend to have the reduplication of its elements accelerated, the other (with centriole-set 180 degrees out-of-phase) its reduplication retarded.

To test this prediction, and "No. 4", your PERIOD OF OBSERVATION of the sea urchin eggs must, however, approximate to the normal 4-cell blastula time-span.

With kind regards,

Yours sincerely,

P.S. As an off-the-cuff corollary prediction : Your Hydrodynamics colleagues at Berkeley ought, if my pulsating-centrioles principles be correct, to be able fairly easily to arrange a set of pulsating (eg. gas-filled) elastic spheres in fluid medium, all within a plastic boundary membrane, in such a way as to produce 'flagellar' movements in a cylindrical extension of the membrane into which extends an oscillated ribbon-like attachment to each of the pulsators ; and so engineer a pulsator-powered 'flagellar' form of marine propulsion !

BY AIR MAIL
PAR AVION
AIR LETTER
AÉROGRAMME



Professor Norbert WIENER,
Department of MATHEMATICS,
Massachusetts Institute of Technology,
CAMBRIDGE 39,
Massachusetts,
U. S. A.

First fold here

Second fold here

Sender's name and address: T. McLardy, B.Sc., M.D.

AN AIR LETTER SHOULD NOT CONTAIN ANY
ENCLOSURE ; IF IT DOES IT WILL BE SURCHARGED
OR SENT BY ORDINARY MAIL.

To open cut here

140 Hollister Avenue
Santa Monica, Calif.
December 29, 1960

Dear Professor Wiener

I hope that you and Mrs Wiener are well and are enjoying yourselves in Naples. Mr. Tallman told me of your plans to teach at U.C.L.A. this summer and I am delighted that I will again be your assistant.

During the summer that we worked together we spoke of my writing a doctoral thesis under your guidance at M.I.T. You might recall that I didn't return to M.I.T. then because I felt that my preparation was inadequate. However, now I think that I can respond to your instruction and I am ready to move to Cambridge. The only question that remains is whether you will be at M.I.T. next September and would you be willing to be my advisor then.

Regardless of your reply I am looking forward to seeing you this summer and wish you and Mrs. Wiener a very happy new year.

Yours truly,
Michael Marcus

29/12/1960

Dr. S. Incarbone
Via Soperga 52
MILANO

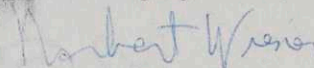
Dear Dr. Incarbone,

I thank you for your kind letter of December 19 in which you inform me of your recent work and of your wish to have an appointment with me here in Italy. Unfortunately my schedule, from now on, is very heavy and I shall also be absent from Naples on conference tours from the 10th to the 20th of January. My departure from Naples for the United States is set around the last days of the same month.

As you can see, therefore, the only time open for such a meeting is between the 20th and the 27th of January. If you can arrange to come down to Naples during that week, I shall be very happy to meet you and discuss with you those problems concerning your field of interest.

Hoping to hear from you again.

Sincerely yours,



Prof. N. Wiener

NW:amh

29/12/1960

Prof. Alessandro Terracini
Biblioteca Matematica
Via Carlo Alberto 10
T O R I N O

Dear Professor Terracini,

Many thanks for your courteous letter of invitation. As you have ~~already~~ summarized I find it necessary to cut my ~~en-~~ engagements down as heavily as I can, and I shall not be able to come to Torino, which I regret very much. I hope to visit Torino on another visit to Italy in a few years.

You mentioned a group of universities in the North and hoped that I would be able to visit one. I expect to be in Genova between the 10th and the 20th of January. Professor Caianiello is making arrangements for me.

With best wishes,

Sincerely yours,

Prof. N. Wiener

NW:amh

December 29, 1960

Dear Professor and Mrs. Wiener,

Today I am spending my day at the office and am also forwarding a lot of mail to you. I hope I have not sent you too much, but I felt that you might want to take a look at some or rather most of them.

How was your Christmas holiday? It must be a lot different to spend it under sunny Italian skies instead of having a "white" Christmas.

We did have a little snow left on the ground, but I did not enjoy too much of it on Christmas, for I spent it in bed with a very bad tonsillitis. There is, as usual, a lot of "viri" going around, and many people succumb to them.

Things here at MIT go their merry way--it is, by the way, snowing now, and I shall try to bring things here to an end very soon in order to avoid getting stuck in the snow.-- Mail is under control at the moment, and my next undertaking will be to find space for all the books and journals which have found their temporary rest on your desk, Professor Wiener, but that will take more time than the rest of this afternoon. People everywhere are asking when you will return, and Miss Sargent has told me that you plan to be back during the first week of February. I am looking forward to seeing you both. You will have a lot of interesting things to tell, and there will be a lot of work to be done. I have contacted Miss Boyd and have heard that the Brain Wave Chapter in the book is not going well. I was sorry to hear that--you worked so hard on it. I am anxious to hear from Dr. Barlow what has happened.

I am in the process of readjusting myself to my familiar surroundings which is not as easy as it might seem to the innocent bystander. Once again one has to get over the feeling of being homesick, but this time there is also the assurance of knowing how things go at home.

During my last three weeks in Germany, I also had a letter from Mr. Bromfield, who, in the case of my not working with you this spring, offered me a job as secretary and receptionist. I was pleased that he had thought of me, but also told him that I had already made arrangements to work with you. It seems that once one had worked with Prof. Wiener many doors open.

Hoping that this note will reach you in the best of health and wishing you a very happy new year,

I remain as ever,

le 29 decembre 1960

Mlle C. de Chambost
Secrtaire
Colloques Philosophiques
de Royaumont
173, boul. Saint-Germain
Paris 6e, France

Chere Mlle de Chambost,

Je voudrai bien vous remercier pour la lettre d'invitation que vous avez envoye a Monsieur Wiener -- a l'egard du prochain colloque philosophique de Royaumont, en juillet ou septembre 1961.

Malheureusement Monsieur le professeur ne sera pas en Europe a ce temps, et je le crois bien improbable qu'il lui sera possible de participer. Toutefois, je vais expedier votre invitation a Prof. Wiener qui est encore a Naples, Italie, en cas qu'il ait de certains plans dont je n'ai pas connaissance.

Veillez agreer, chere Madame, l'assurance de mes sentiments les meilleurs.

Eva-Maria Ritter (Mme),
Secrtaire

ACADÉMIE INTERNATIONALE
DE PHILOSOPHIE DES SCIENCES

SECRETARIAT GÉNÉRAL
221, AVENUE DE TERVUEREN
BRUXELLES 15

BRUXELLES 15, LE 30 décembre 1960

TÉLÉPHONE : 33.23.11

Professor A. WIENER
Institute of Technology
BOSTON Massachusseth

Mon cher Confrère,

Vous avez reçu dans le courant du mois de novembre, un bulletin de vote concernant la candidature des trois mathématiciens: B. de Finetti, W. Sierpinski, F. Severi, et des cinq logiciens: W. Ackermann, P.P.W. Lorenzen, A.S. Mostowski, W. Quine et T.A. Skolem.

Jusqu'à présent, nous n'avons pas reçu ce bulletin de vote en retour. Veuillez avoir l'obligeance de vérifier les documents que nous vous avons envoyés et de nous faire parvenir au plus tôt ce bulletin.

Veuillez agréer, mon cher Confrère, mes meilleurs voeux pour l'année nouvelle et l'assurance de mes sentiments bien dévoués.



S. DOCKX.

[ans 1/9/61]

SPRINGER-VERLAG

BERLIN · GOTTINGEN · HEIDELBERG

(20b) GOTTINGEN, den 30.12.1960
Weender Straße 60
Telefon 57153

Herrn
Prof.Dr. Wiener
Department of Mathematics
Massachusetts Inst.of Technology

Cambridge 39, Mass., USA
=====

Sehr geehrter Herr Professor Wiener !

Die Figur zu Ihrem Aufsatz in den "Naturwissenschaften" ist jetzt umgezeichnet worden. Des leichteren Versandes wegen übermitteln wir Ihnen in der Anlage nicht die Umzeichnung selbst, sondern eine danach hergestellte Photokopie mit der Bitte, diese zu prüfen und mit dem Vermerk "gut" oder Angabe notwendiger Verbesserung möglichst bald an uns zurückzuschicken.

Mit besten Empfehlungen
Ihr sehr ergebener

Anlage

Springer-Verlag OHG.

ppa.

"Figur" rebownd



Institute of Automation
22 Nagornaya St.

Kiev, December 30th 1960.

Dr. N. Wiener
163 Via Manzoni
Naples, Italy.

Dear Dr. Wiener,

My colleagues and I thank you for your kind letter, addressed to R.B. Popov, and hope that you are enjoying your stay in Italy.

I have to apologize that I was unable to meet you in Kiev during your visit here as I was obliged to leave for Moscow on the eve of your arrival.

It was indeed an honour to have you as a guest in our Institute and we all thank you for your interesting lecture.

Taking this opportunity I would like to wish you and Mrs. Wiener a very Happy New Year.

Sincerely yours,

P. Melnik

